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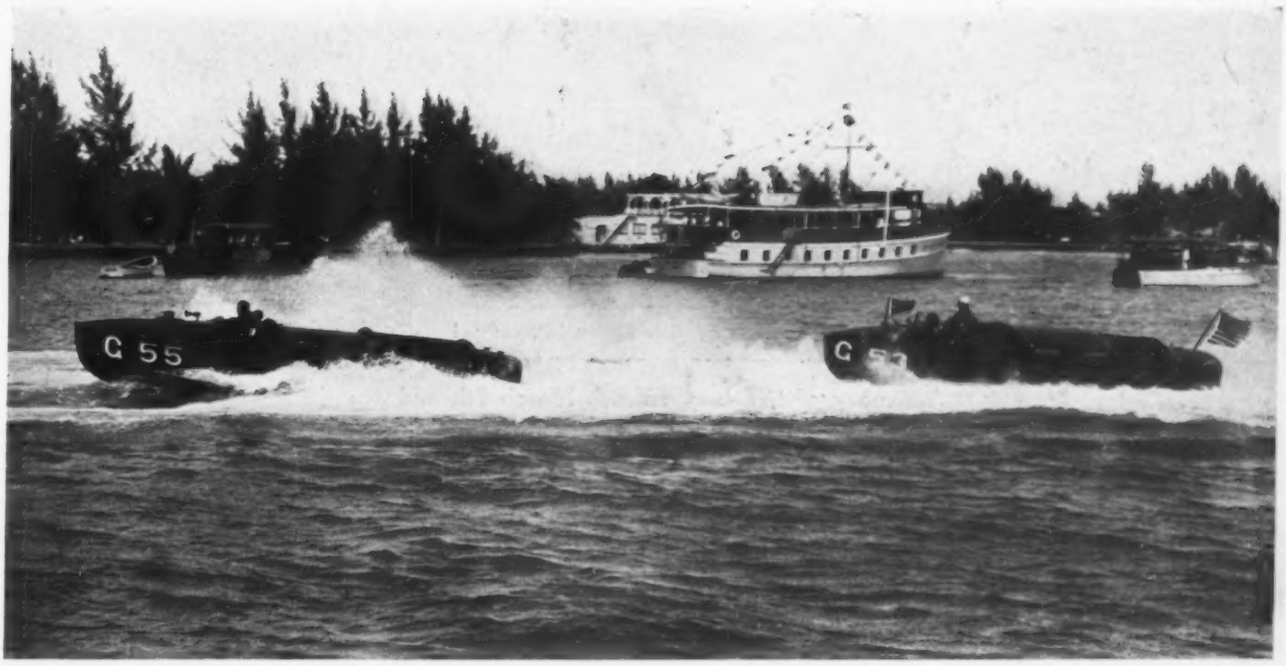


Bear Cats taking the turn at full speed at Miami. The boats are *Pee Dee II*, owned by W. N. Churchill, and *Bear Cat*, E. Gregory's flier.

Speed Boats Pry Lid Off Season at Miami

A Good Sized Fleet, Including a Number of Western Boats, Makes Florida Races a Big Success. Hydroplanes in Evidence.

EVERYTHING from hydroplanes to runabouts and express cruisers got together at Miami on March 7th and 8th to pry off the lid of the 1924 speed boat season. While no records were broken, several boats broke down, and one capsized, so that the throng of Northern and Southern spectators which lined the banks of the Biscayne Bay course were on tiptoe during the two days of the regatta so as not to miss a trick. Biscayne Bay is an ideal body of water for racing high speed boats, and the fact that it is the center of winter boating in America brought a large fleet of houseboats and yachts to the course and made the event the principal one of the Florida season.

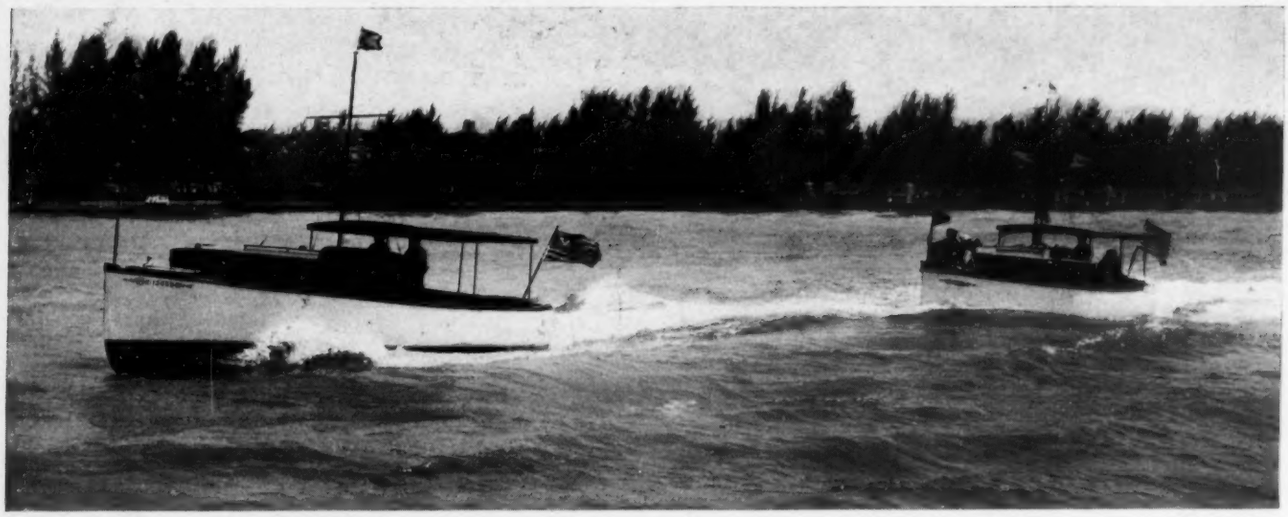
The new 825 cu. in. class of hydroplanes, which brought together boats of this type for the first time in some years in the East, seemed to be the favorite with the crowd. The first heat in this class was called off, or re-sailed, on account of *Black Diamond's* forced withdrawal, after *Elenar* had just nosed out Walter Wilde's *Meteor VI* and *Meteor VII*. The second heat, and the race, went to *Meteor VI*, the only boat to finish the race. *Meteor VII* capsized, fortunately without harm to her crew, and *Elenar* and *Black Diamond* were both forced to withdraw on account of breakdowns. The water was rough and choppy the first day, and conditions were still strenuous for the second heat, so that top speed could not be made. An average of 49.3 miles was nevertheless made the second day.

Edsel Ford's *Nine Ninety-nine* showed speed and consistent running in winning both heats of the Sweepstakes Liberty class. *Baby Cub*, *Mary* and *Wilgold* followed in order. *Muskateer*, owned by Horace Dodge, was sideswiped by *Wilgold*, driven by Jack Williams, and was forced to withdraw the first day. The winner averaged 45.5 miles for the course.

The express cruisers had it out nip and tuck, *Conners*, driven by her owner, W. J. Conners, finally nosing out *Shadow H* by a scant 2 seconds. *Adieu*, owned by Webb Jay, was only a length or so behind the leaders, *Marionette* bringing up the rear of the parade.

Though defeated in the Sweepstakes, *Wilgold* came through in fine style in the so-called Gentlemen's Runabout class, winning both heats by close margins. E. Gregory's *Bear Cat* amassed enough points to get second place, with *Palomine* and *Pee Dee II* bringing up the rear.

As usual, the Chance Race, open to everything that floated, regardless of type or power, brought out a heterogeneous assortment of craft, which provided great amuse-



The "Chance" Race at Miami saw some close finishes. *Vivette* and *Halite*, Elco Cruisettes.

Summary of Races at Miami, March 7th and 8th

SWEEPSTAKES—March 7 and 8, 1924
2 heats—40 miles each

Boat	Owner	Time, first heat	Time, second heat	Total points
999	Edsel B. Ford	56-26	52-37	12
Baby Cub	Howard Lyon	1-00-48	57-41	9
Mary	Col. E. H. R. Green	1-17-54	1-02-52	6
Wilgold	J. A. Williams	58-01	D.N.F.	5
Sue J.	Webb Jay	1-02-04	D.N.S.	3
Musketeer	Horace Dodge	D.N.F.	D.N.F.	0

Best speed for 40 miles, 45.5 miles per hour.

EXPRESS CRUISERS—March 8, 1924

Boat	Owner	Time,	Position
Conners	N. J. Conners	21-42	1
Shadow H.	Carl G. Fisher	21-44	2
Adieu	Webb Jay	21-55	3
Marionette	E. Rompf	25-33	4

RUNABOUT CLASS (825 Cubic Ins.)—March 7 and 8, 1924
2 heats—12 miles each

Boat	Owner	Time, first heat	Time, second heat	Total points
Wilgold	I. A. Williams	36-38	44-29	8
Bear Cat	E. Gregory	44-54	44-39	5
Palomine	C. E. Sorensen	37-48	46-23	4
Pee Dee II.	W. N. Churchill	D.N.F.	45-01	2

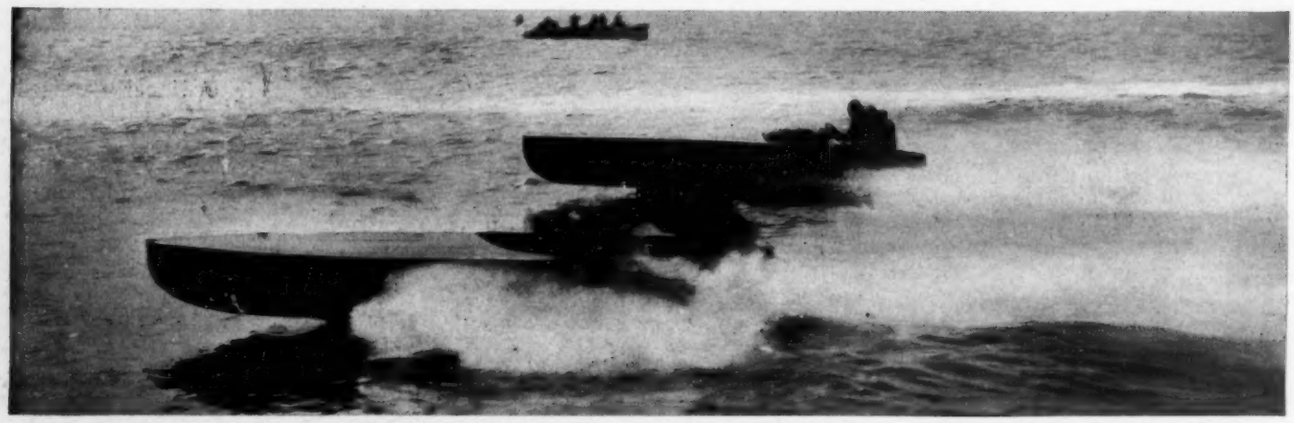
Best speed for 24 miles, 39.2 miles per hour.

HYDROPLANES (825 Cubic Ins.)—March 7 and 8, 1924
2 heats—12 miles each

Boat	Owner	Time, first heat	Time, second heat	Position
Meteor VI	W. B. Wilde	15-47	14-39	1
Elenar	W. H. Ruhaak	15-45	D.N.F.	2
Meteor VII.	W. B. Wilde	15-54	D.N.F.	3
Black Diamond	Barrick & Weber	D.N.S.	D.N.F.	0

CHANCE RACE—Four Miles, March 8th, 1924

Boat	Owner	Position won	Actual finish
Harpooner	R. P. Breese	1	2
Scorpion	T. Dickinson	2	5
Pee Dee II.	W. N. Churchill	3	1
Vivette	G. Cushman	4	9
Margaret F.	L. O. Fisher	5	4
Tec	W. Wiedeman	6	11
Marinette	E. Rompf	7	3
Black Jack	W. Bond	8	6
Safety First	W. R. Alexander	9	12
My Own	R. Worthington	10	7
Hilton	J. L. Parson	11	8
Pet	M. Johnson	12	10



Meteor VI and *Meteor VII* had a thrilling brush in the hydroplane class, the former winning. They are both owned by W. B. Wilde, of Peoria.

ment for the onlooking crowds. The winner turned up in *Pee Dee II,* with *Harpooner* second and *Marionette* third in the actual racing. In the resulting drawings *Harpooner* got the lucky number.

Interest in the racing this year was heightened by the entries of a number of boats from the Middle West. Most of these boats were of the small hydroplane type used on the Mississippi River and at Peoria. Walter H. Wilde had his two record-holding boats, *Meteor VI* and *Meteor VII* on hand, and W. H. Ruhaak of Peoria entered *Elenar. Black Diamond,* the other hydroplane present, had hard luck and did not finish in either heat. This invasion by the Middle West speed boat owners should do a lot for the sport here in the East.

After the Miami Regatta, some of the racing boats journeyed to Havana to take part in the racing there the following week.

Fisher-Allison Trophy Protest Decided

While the boats were racing at Miami this year the award on the protest of the 1922 Fisher-Allison Trophy Race was announced by Commodore F. R. Still of the A. P. B. A., and the *Nick-Nack* was awarded the prize, thus bringing to an end a dispute that has lasted nearly two years. As one of the legs on this trophy was won in 1921 at Miami by *Adieu,* the power boatmen gathered at

Timers and officials at races at Miami. Left to right, O. H. Porter, M. G. Porter, Com. H. A. Jackson, C. S. Ricker, F. P. Huckins.

the Florida course were especially interested in the decision.

Colonel Wm. S. Hayward, United States District Attorney, New York, who was selected to arbitrate the disputes between contestants in the 1922 Fisher-Allison Trophy race, at Hamilton, Ont., made the decision. *Nick-Nack* was built in Detroit by John L. Hacker and powered with a Hall-Scott engine. This ends one of the longest contentions in the history of the American Power Boat Association over the award of a trophy.

After the running of the race late in August, 1922, practically every contestant filed a protest, there being only one exception, and he was protested. The trophy was given in 1919 for displacement craft, powered with stock marine engines. The A. P. B. A. at its 1919 annual meeting adopted a resolution barring all Liberty or other types of aviation engines, redesigned or converted for marine purposes.

After three races, one in 1920 at Detroit, won by Harry B. Greening's *Rainbow,* from Hamilton, Ont.; one in

Where the lucky yachtsmen play in winter time. Flamingo Dock, Alton Beach, Biscayne Bay.

1921 at Miami, won by Webb Jay's *Adieu,* from Little River, Fla.; one at Buffalo, won by Sylvester B. Eagan's *Rainbow,* of Buffalo, the race at Hamilton was entered by Commodore "Gar" Wood, with a boat powered with two Italian Fiat sixes, and Col. J. G. Vincent, with a Packard twelve. Both owners submitted affidavits that the power plants were stock marine engines. The other owners objected and filed protests.

The two protested owners then protested the rest of the field. With every boat protested the regatta committee ran the race and put the decision up to the Racing Commission of the American Power Boat Association. The Commission in turn referred the protest to the executive body of the national organization, and the president of the association was instructed to obtain the services of a disinterested referee for the hearing. He

(*Continued on page* 317)

Edsel B. Ford's *999,* winner of Sweepstakes.

Fog

How a Couple of Landlubbers Got Their Baptism of Brine in Block Island Sound.

By LLOYD MAYER.

"SHE'S the bee's knees," declared Hal enthusiastically.

"She's the cat's meow," I concurred no less heartily.

And "she" was not the season's daintiest debutante, but a weather-worn craft of dreadfully antique design and truly terrifying age, could we have only known it. However, our experience of boats was so slight as to make us insensible to what would appear obvious to the optics of a sailor.

A few days previous to our casual happening upon the old *Clara T.* in the course of wanderings through cluttered boat yards smelling of copper paint and shavings, Hal and I had resolved to do something out of the ordinary for the two weeks of our allotted vacation which we were accustomed to spend together. Hal, who had been reading Captain Slocum's *Sailing Alone Around the World* and London's *Cruise of the Snark,* suggested that a coastwise cruise would probably afford us more diversion than any other form of harmless amusement we could trifle with during our fortnight's leisure. I, who had been reading a book of etiquette, agreed that anything was better than to remain at large and footloose in the vicinity of good society when a blunder in eating soup might mean complete ostracism.

"His sneakers squished eloquently of tomato soup."

Cruising seemed to be the logical answer to the problem of "getting away from it all" without the mosquito bites, citronella, poison ivy and other "open spaces" horrors which a back to nature movement usually involves.

The venerable "captain" of the *Clara T.,* who said he had owned her for "nigh onto seven year," delivered himself of infinite encomiums on the craft's seagoing qualities, comfort and speed, all of which we swallowed like so much butter, luxuriating the while in the conviction that he imagined no drop in the full torrent of his marine vocabulary was wasted, albeit in our profound ignorance of things nautical most of his allusions were as incomprehensible to us as the ravings of a modiste over the latest Parisian creation for madame.

Since acquiring the *Clara T.,* for acquire her we did, on the spot, and for spot cash, we have both concluded that these "captains" have a remarkable tact.

Disregarding the popular superstition that ill luck follows a boat when her name is changed, one of the first things we did after possessing ourselves of our floating home was to rechristen her the *Pretty Pickle,* a title which seemed to us both natty and unique, and rich in risible connotations. It made everybody at the office laugh almost as heartily as they did at the thought of our going cruising. Then, too, it afforded the boss opportunity for many a pun at our expense, thereby putting him in high good humor, which was an excellent thing in itself, for there was no telling when we might expect to return, once we started on this argosy, and therefore it was just as well that he should look with benignant tolerance upon our venture. As long as one remains the sport of his employer there is no danger of being fired.

"Don't look to me like she'd been in the water for ten year," critically observed the prosaic boatman whom we had hired to aid us in the work of conditioning the *Pretty Pickle* for sea. This was on the eve of launching, when the slanting rays of the westering sun at the end of a balmy June afternoon made a glistening dream of this old hulk to our enchanted eyes. We had laboriously run gluey composition stuff into her gaping seams, plastered her bilge with red lead and green composite, scraped and varnished to something of its pristine appearance her bright work, smeared her rough sides with shiny white enamel and her decks with navy yellow.

"She ought to float about ten o'clock and you'd better stand by with the pump so's she won't sink on ye," continued Sam gloomily. "Never can tell what these old hookers will do when they ain't been over in years. Now this here's all dried out," he added unemotionally, kicking at the carefully painted garboard strake.

It was precisely 10:20 that night when the *Pretty Pickle* became water-borne and by eleven we were working valiantly to keep what remained of the harbor out of her capacious bilge. Sam had faded into the moonlit dusk of the still, placid evening with a parting injunction anent employing the pump to best advantage, adding the heartening information that if we couldn't "keep her from sinkin' she ain't got fur to go, anyways."

About four days later she soaked tight, or at least tight enough to make the laborious ceremony of pumping necessary only every five or six days. Officially, of course, she didn't leak a drop. That's what we told everybody with the customary pride inherent in proprietors of boats everywhere. No man will admit his boat leaks any more

than he will confess his daughter a convert to habitual cocktails and cigarettes.

A few days before our vacation began, Hal very wisely set about the purchase of sundry abstruse charts and navigational aids of one sort and another. I arrived at our apartment one evening to find him kneeling upon a "Mercator projection" like a Turk on a prayer rug, meticulously see-sawing a pair of parallel rules across the depth-scattered surface of what represented Block Island Sound. He informed me proudly he was "plotting courses," having learned how from a perusal of an elementary treatise on piloting much in vogue among neophyte naval reserve ensigns during the war.

We had, or thought we had, mastered the ungentle art of sailing in a half dozen spins on the harbor under the profane and bitterly sarcastic tutelage of the dispassionate Sam, who had "allowed" at the conclusion of our hasty cramming in seamanship essentials "that we'd git along somehow, leastways if we didn't let her git away from us." That last curiously ominous phrase is wonderfully connotative of the hell-raising destruction consequent on permitting a sailing craft to master one, isn't it? We were to realize its full significance.

I don't suppose either of us will ever forget the gilt-edged morning when we got sail onto the *Pretty Pickle* and stood out into the channel, where we eased our sheets and pointed her unlovely snout southward as the quartering northwester freshened and cast dark racing shadows on the placid blue monotone of the bay, speeding us on our initial cruise.

Hal was self-appointed navigator and cook; I, sailing master and dishwasher. It seemed a charming arrangement and indeed proved mutually satisfactory until we began to lose faith in our respective capabilities.

I first began to question Hal's attainments in the field of applied culinary science when he attempted to scramble eggs in a dry frying pan. It wasn't eating the consequent malodorous mess which bothered me; it was cleaning the pan.

He became uncomfortably aware of my profound ignorance of how to handle the *Pretty Pickle* when we drove into Newport harbor that night and broadsided ridiculously to leeward through a fleet of smart yachts before our hook held, owing to the fact that the old girl's head had fallen off, the half-lowered canvas had bellied unmanageable and things generally chaotic had happened with stunning suddenness. Only the deity which guides the steps of fools and inebriates could have prevented our piling up in the unsavory region of the gas house.

That night, however, the elated consciousness of having made a forty-mile run and come to anchor without serious casualty outweighed the incipient feeling of distrust in each other's prowess which had been born of the day's experience. Hal put butter in the frying pan and the omelet he prepared would have done credit to a Breton chef. Getting underway next morning was accomplished inconspicuously if not with complete skill. I regained confidence and appetite.

We were again favored with a brisk northwest breeze that bore us gloriously seaward through an expanse of tumbling cerulean surges, racing white-maned to meet the challenge of our dipping prow. Sunshine streamed dazzling from a pure sky, its burnished radiance glittering like cloth of gold upon a blue mosaic.

We were beginning to sense that indescribable consciousness of careless vigor and well-being which contact with the sea imparts. We sang lustily, shouted hilarious absurdities, made the most astoundingly exaggerated statements regarding the virtues of our craft, laughed enormously at everything. When the Block Island excursion steamer curtseyed by we blew three defiant blasts on the fog horn, which her pilot tolerantly acknowledged with a wave of his hand and a trio of long-drawn, throaty whistles, heralded by puffs of white like bursting shells. Life seemed completely joyous.

Abeam of Point Judith we ran into a tumbling cross sea. Hal had gone below to prepare lunch. I heard an exclamation of dismay after the *Pretty Pickle* had lurched violently to port under the impulse of a boosting surge

"Hal, I hear a freight train dead ahead."

that licked its green tongue to the level of the rail and sent us tobogganing dizzily into the trough between two mountain walls of water. Hal came on deck, steadying himself. His sneakers were dyed red. They squished and gurgled eloquently of tomato soup.

Two or three miles further to the southward the wind fell to a light breeze, then left us heaving, with slatting canvas, on an undulating prairie of lead gray. To the southwest the sky became filmed with mist. The air grew damp and chill. From out of the slow-gathering obscurity to the south'ard came suddenly a long-drawn hollow bellow. Then, like an echo from the now hazy Rhode Island shore, a faint answering resonance drifted mournfully. We were too untutored to realize the significance of these sounds, but they made us nervous, nevertheless. We had been able to make out the shadowy

silhouette of Block Island against the distant skyline shortly after we had left "Pint Jude" on our starboard quarter. When we looked again, anxiously, into that threatening gloom ahead, it had faded in the impenetrable mystery of merging sea and sky.

Then, with incredible swiftness, we were isolated hopelessly from visible realities by an impalpable, white, circular wall that towered into a sky dulled to the color of lead by sullen clouds.

"Fog," chattered Hal, with a poor attempt to conceal his dismay.

"Hell!" I managed to ejaculate.

"It's the same thing," concluded Hal miserably.

Then, like a ghost ship, the *Pretty Pickle* began to move silently toward that white wall which always receded yet was ever there, close and inscrutable. So faint were the puffs which filled her listless sails we could scarcely feel their breath upon our faces.

"Where are we?" I fired at Hal accusingly. After all, I said to myself, he was navigator. There was something absurdly comforting in the thought.

He ducked below as if he'd been sandbagged.

I had sense enough to realize, from a glance at the compass card, that what breeze there was had come out dead ahead. Beating to Block Island in a fog! The idea appalled me. We'd have been lucky to get there in clear weather, I reflected ruefully.

Hal came on deck and stared blankly at the encircling mist. He indicated with a nervous finger our assumed position on the chart and named a course for the entrance buoy off the breakwater at Great Salt Pond.

I told him with a trace of malice that we couldn't hold within four points of that course. He looked crestfallen and, mumbling something about a "traverse," grabbed the chart and ducked below again.

"What course are you holding?" he yelled a moment later. I told him. The wind freshened and the *Pretty Pickle* gathered way, seeming to fly with magic swiftness now through that silent, blind whiteness. I was holding her close on the wind.

Suddenly a regularly cadenced beat, a muffled clanging curiously familiar, became audible from somewhere beyond the white wall, apparently dead ahead. I controlled an hysterical impulse to yell, then questioned Hal intensely, after naming the course again.

"You're sure that won't put us on the beach?"

"BEACH?" he roared indignantly. "Say, what the h—!!!"

"Look here, Hal," I faltered weakly, "I HEAR A FREIGHT TRAIN DEAD AHEAD!"

He was at my side in an instant, peering at the impenetrable wall, both of us straining our ears for that awful rhythmic beat of machinery growing momentarily louder as we rushed onward through the mist.

The sea had become suddenly smoother, though the breeze still continued fresh and we were heeling perceptibly. But for the kiss of the bow wash and that ominous sound hurtling out of the gloom there was a silence as of death upon us.

For several minutes we stood there, acutely attentive, neither of us speaking. Then, abruptly, above the frightening monotony of that weird noise there came a sound as of a waterfall, the regular swish and plash of water falling from a height upon water.

It was Hal who saved the situation. With the voice of a madman he yelled: "Put her about!" and, on the instant, dove for the companionway. I obeyed his command instinctively, jamming the wheel hard down. And as the *Pretty Pickle* luffed into the wind, spinning on her heel, I became aware of several things.

The first was an ear-splitting blast from the fog horn which I suddenly realized was at Hal's lips. The second was the almost synchronous bellow of a steamer's whistle, the cessation of that cadenced beat of machinery and the looming of a sudden ghostly shape within the wall of mist. I heard confused voices that seemed very far away and unreal, the patter of running feet and a hoarse cry of "All right there?" which sounded with terrible distinctness. The next instant the spectre had vanished into the fog astern.

Hal was lighting a cigarette. As he tossed the match to leeward he remarked with damnable placidity: "A pretty close call." I was in a beastly funk and, besides, in mortal terror that he might add something about freight trains. But he didn't. Hal is a generous soul.

He went below and brewed hot coffee and fried chops, over which we became almost cheerful, although our plight with the advent of darkness had obviously worsened. The night was as thick as blue clam mud.

Of course we both remained on watch, Hal for the most part poring over the chart, I at the wheel. At regular intervals we came about, attempting to make good the base course for the entrance buoy, straining our ears for the muffled wailings of fog signals that came drifting down wind like the cries of anguished spirits shackled in everlasting night. There was a tense excitement about it all that is fascinating in retrospect.

About three bells in the first watch Hal opined we ought to be able to pick up the buoy on the next starboard tack. A light sea was running and the wind had increased in the last hour to a whole sail breeze. There wasn't a rift in the inpenertable, stifling gloom that enshrouded us. If we missed the mark. . . .

We stood on, desperately, fighting back that nameless terror that grips one in such circumstances. After all, the worst that could happen would be a sudden rending crash, ignominious shipwreck and disillusion.

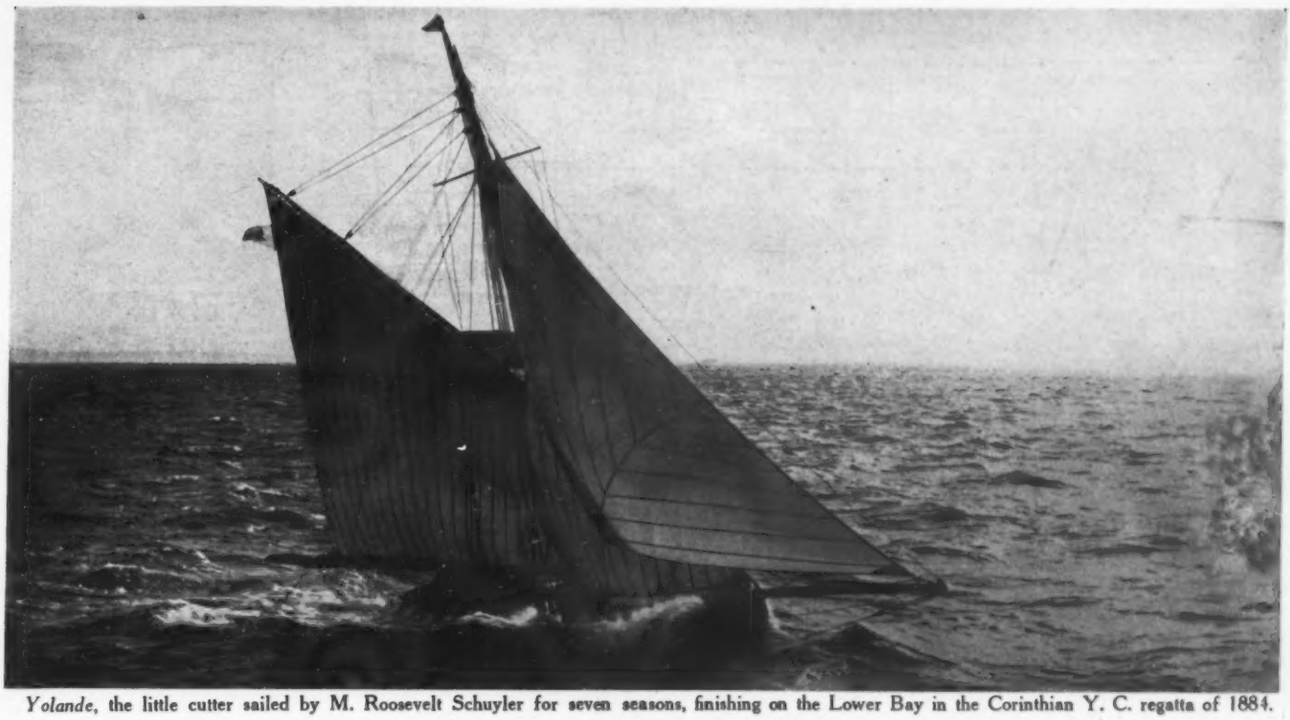
We held on as long as we dared; until Hal reckoned we must be close, very close to the beach . . . and still no welcome note of warning from the bell!

We came about and luffed along on the port tack for the next half hour, groping blindly for that guiding sound which eluded us. Another tack and still another. Then a sudden triumphant "Listen!" from Hal and an instant later I, too, heard it—a faint tinkle, hardly audible above the whisper of the wind.

We brought it close aboard within the next quarter hour and, easing sheets, ran blind for the breakwater entrance on a course Hal had plotted. He went forward on the lookout, though, Heaven knows, you couldn't see the nose of the bowsprit from the heel, and at that very instant my nervous senses became aware of something that sounded like the lap of water against stone.

Instinctively, almost, I spun the wheel up, and as if that abrupt movement had been directly responsible, the wall of mist crumbled away, disclosing a night star-crowned and suddenly clear. The long finger of the breakwater showed darkly against the luminous sky and close, so close, aboard that but for that quick spin of the wheel we must have piled up.

It was Hal's turn to feel a bit groggy. He came aft, cursing softly. But as we fled on through the quiet water, sheltered now by that grim tumbled heap of stones, a sense of calm triumph and of peace stole over us. We had made it, after all; had won our spurs. What if a bit of luck had settled the final issue?



Yolande, the little cutter sailed by M. Roosevelt Schuyler for seven seasons, finishing on the Lower Bay in the Corinthian Y. C. regatta of 1884.

M. Roosevelt Schuyler

Keen Yachtsman of His Day and Leader of the Most Radical Revolution in American Yachting

By W. P. STEPHENS

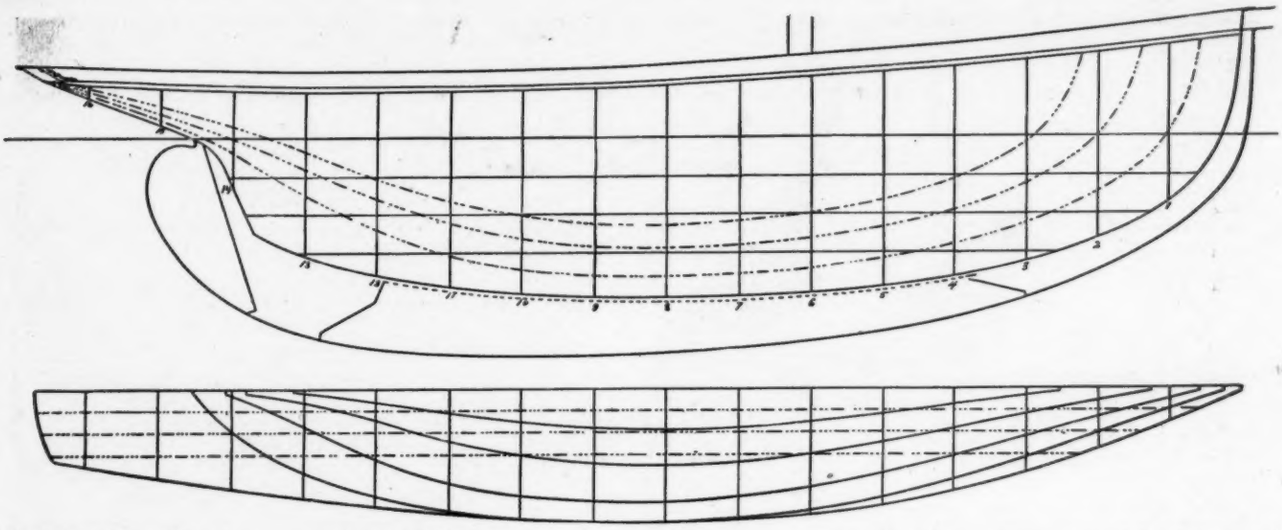
YACHTING is, to-day, an eminently peaceful sport. There never has been a time in its history when there was so little discussion of questions of type and rule, or such general unanimity of opinion on most details of design and race management. That it was not always so is recalled to the older yachtsmen by the death of M. Roosevelt Schuyler on the first day of the present year. Among the "Cutter Cranks," a term of reproach when first applied by their numerous enemies but later accepted as an honorable distinction, Mr. Schuyler was recognized as the most extreme and militant, the natural leader of the little band, and to him is due the first credit for the most radical revolution known to American yachting.

Allied to the old New York families of Montgomerys, Roosevelts, Livingstons and Schuylers, the son of the Rev. Mr. Montgomery Schuyler, a divine of the Episcopal Church, Montgomery Roosevelt Schuyler was born at Skaneateles, N. Y., on February 18th, 1847. His boyhood was spent partly in St. Louis, Mo., where his father had a charge, and in September, 1862, he entered the United States Naval Academy in a class which included the late S. Nicholson Kane, Daniel Edgar, Commander J. J. Hunker and John C. Soley, all yachtsmen in later life. Completing a two-year course in one year, in his second year he stood third in the Advanced Class of 53 members, but was forced to discontinue on account of ill health. On his return to the Academy in the following year he was placed at the foot of the Second Class, and in October, 1865. he resigned, thus missing a career for which he was eminently fitted.

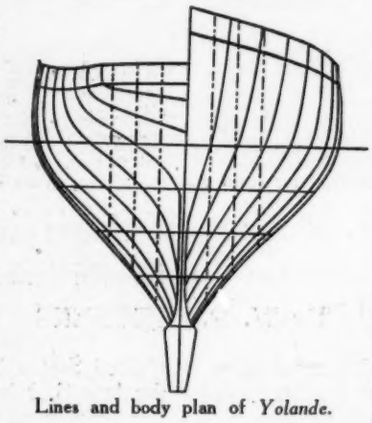
M. Roosevelt Schuyler (left) and William Fife, the noted British yacht designer. Taken at City Island, 1922.

After a cruise around the world in a sailing ship commanded by his friend, Captain Louis F. Timmermann, he settled in New York and took up a business career.

Canoeing as a modern and civilized sport was introduced into America from England in 1871 by a small coterie of boating men, all more or less inter-related and several of them closely associated in newspaper work in the neighborhood of Printing House Square, New York. The movement was started by William J. Alden, an editorial writer on the New York *Times;* G. Livingston Morse, the son of the founder and publisher of the New York *Observer;*



Montgomery Schuyler, a cousin of M. R. Schuyler; John Haberton, author of *Helen's Babies,* which provided many a laugh for a past generation, and Col. Charles Ledyard Norton, a well-known writer. With these were Louis P. Bayard, H. Edward Ficken, and two captains in the merchant service, Louis F. Timmermann and S. Grosvenor Porter. The two Schuyler cousins were distinguished by the nicknames "Montie" and "Robo," the latter a diminutive coined by M. Roosevelt Schuyler before he was able to master the pronunciation of his middle name; it clung to him through life and became a term of affection to those who were privileged to know him intimately. He was elected the first Commodore of the Club, which included five Roosevelts in its membership.



Lines and body plan of *Yolande.*

Coincident with the organization of the Canoe Club came a similar movement in yachting by a party of young men resident about Oyster Bay, Long Island, and sailing in centerboard catboats and sloops. The leader was William L. Swan, still an honored resident of Oyster Bay, who called a meeting in September, 1871, on board his sloop *Glance* for the organization of a yacht club devoted to the promotion of Corinthian principles. The Indian name Seawanhaka was selected for the club; the word Corinthian, though considered, was not accepted at the time but was adopted several years later.

At that day the functions of a yacht owner were limited largely to the paying of bills and his sailing depended, both as to when and where, on the will of his sailing master. The owner as a rule laid claim to but little knowledge of either design or handling, and was well content to leave such uninteresting matters to his professional skipper. The membership of the new club was composed largely of Roosevelts, and the Beekmans, Fosters, Foulkes and Townsends, who made up the remainder of the population of the village of Oyster Bay.

Starting out with a bold proclamation of Corinthian principles and a rule that "the owner of each yacht must, in all regattas, steer his own yacht," the Club soon numbered under its burgee the owners of some of the larger and more important of the yachts of New York waters. As his interest turned from canoes to larger craft, Mr. Schuyler joined the Seawanhaka Yacht Club in May, 1873, and took an active part in the building up of the organization. Two years later he joined the New York Yacht Club and at the time of his death was No. 10 on the roll.

The establishment of the Seawanhaka Yacht Club was the beginning of a movement, first, for Corinthianism in the handling of yachts, and, secondly, for the improvement of the yacht herself through a study by yachtsmen of the principles of design and the encouragement of the professional yacht designer. This program naturally aroused the active opposition of two classes—the professional yacht skipper and the modeller-builder, each believing that his means of livelihood was imperilled. While some leading yachtsmen espoused the new cause, the majority stood stoutly by the professional element, and in the middle seventies the yachting world of New York was divided into two camps which were heatedly discussing the questions of type, model and method. It was Mr. Schuyler who, more than any other individual, forced the fighting by a bold declaration for the English cutter of the day—comparatively narrow, with most of her lead on the keel, and the typical cutter rig, with long housing topmast and bowsprit and loose-footed sails.

In this he met with widespread and bitter opposition, from both yachtsmen and the press, the latter including the yachting journals and the daily papers of New York and Boston alike. The one writer who espoused the cutter cause was C. P. Kunhardt, an Annapolis graduate several years junior to Mr. Schuyler, then yachting editor of *Forest and Stream,* another enthusiast, a hard fighter and a vigorous writer.

After several years of heated discussion in print and in the clubs, the battle reached its practical stage in 1878 in the building of the 10-ton cutter *Muriel,* designed by John Harvey and built by Henry Piepgras for Charles Stillman of the Seawanhaka Yacht Club, Mr. Schuyler being the moving spirit in this enterprise. Two years later the cutter *Yolande* was built for Mr. Schuyler from his own design, followed by the *Leila,* a smaller cutter, and in 1881 came *Oriva,* for Mr. C. Smith Lee.

The roster of the "Cutter Cranks" in the early eighties was largely as follows: M. Roosevelt Schuyler, Edward M. Padelford, C. Smith Lee, W. A. W. Stewart, Archibald Rogers, Charles A. Stevenson, Leon F. d'Oremieulx,

(*Continued on page* 338)

Light Sails in Ocean Racing

The Value of Light Canvas Often Underestimated by Off-Shore Sailors. Fast Passages Depend on Speed in Light Winds.

By SAMUEL WETHERILL.

SAILORS who have been through the mill of small boat racing on short courses, where it is often a matter of seconds at a close finish, are fully awake to the importance of light sails. But in ocean racing we frequently find boats manned by cruising men who haven't been through the racing game, and therefore don't appreciate the great value of light sails, particularly on long passages. So I am going to spill a little dope on the subject, hoping that it will help those who don't know much about light canvas, or may be skeptical as to its value.

If the skeptics will take the trouble to look into the matter a bit, they will find that, without exception, the winners of ocean races use plenty of light sails—and use them intelligently. In last year's Bermuda Race, *Malabar IV* used them consistently with fine effect. Not only were they a big help in lifting her through the fleet soon after the start, but several times later on they moved her along at two or three miles an hour when her working sails were useless. And "Bob" Bavier told me that on *Memory,* not only did they use their light canvas frequently, but once they lowered away their working sails entirely to stop the terrific slatting in a "rough

With squaresail hauled out to end of spinnaker pole and watersails set wherever possible, *Diablo* swung everything available.

weather calm," set their kites and kept *Memory* moving on her course. Howard Smith, in his interesting article on *Sea Call's* trip, when they had a nip and tuck race with *Dainty* all the way down, bemoaned the lack of light sails when *Dainty's* kites were lifting her out ahead of the kite-less *Sea Call.* And just look at the flock of sails of all kinds on *Diablo,* the Honolulu Race winner!

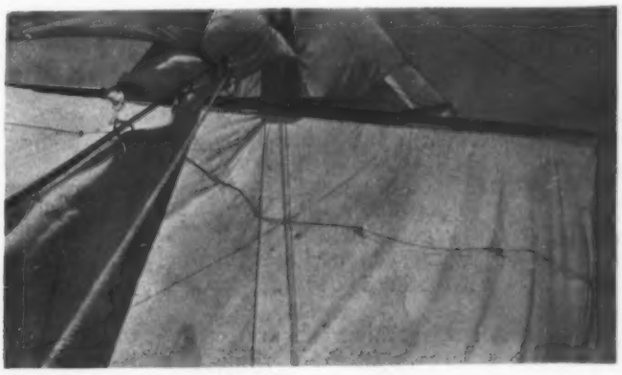
If the winners use them, and the losers deplore the lack of them, I guess the case for light sails is pretty well established. So let's get along and see how and why light sails are useful, what are the best varieties to use, and when to use them.

Why Light Sails Are Useful

Light sails are used for two reasons: First, to increase the sail area, and, second, because being made of lighter material than the working sails, and being unencumbered by heavy spars, they fill out and "set" in light weather when the heavier working canvas is a more or less shapeless, useless rag. This is particularly so in ocean work, where there is always a heave and a roll to the sea, even though the wind is light. It is in these "rough weather calms" that the heavy working sails slat, bang and thrash about, spilling out what little wind there is. But light sails, even in the faintest of zephyrs, will fill out and draw, pulling your craft along where she would lose steerageway with only working canvas set.

Flat vs. Baggy Sails

Not so long ago it was the fashion to cut light sails just as big and baggy as possible. Spinnakers and balloon jibs were huge, cavernous kites, sometimes cut so low that they dragged in the water. But styles have



Spare head sails set above squaresail on *Diablo* in the Honolulu Race.

changed. Experience has taught us that smaller and flatter sails are more efficient. They let the dead air out, so that new air can get in and do its work, and they have a lifting, rather than a depressing, effect. While there may be a few occasions where the big baggy sail is best, they are far outnumbered by those where the moderate sized, fairly flat sail is far superior.

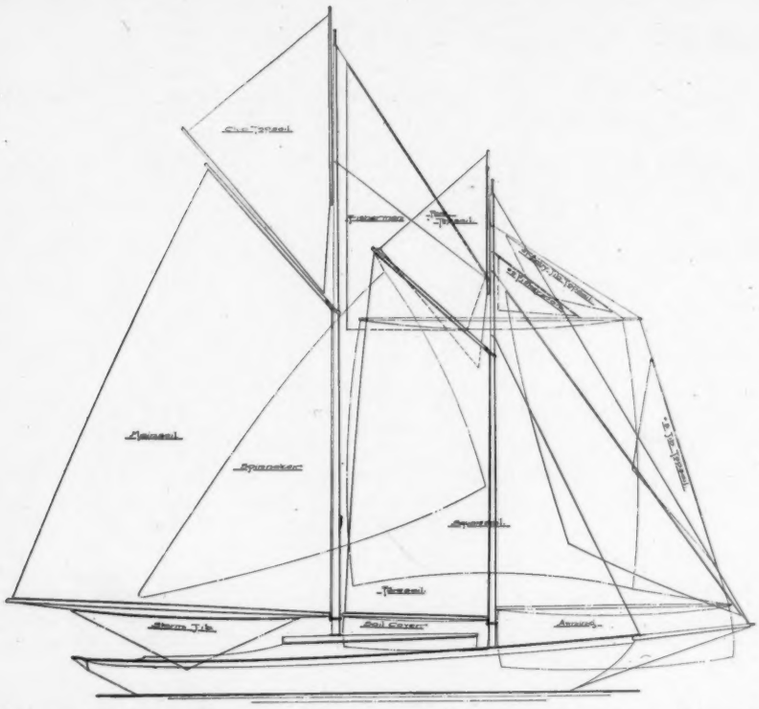
Spinnakers

Spinnakers are probably the most popular of light sails. The gear is not complicated, and they can be set or taken in easily and quickly. While used principally before the wind, they can also be guyed forward when the wind is well over the quarter, and are great pullers if cut right and properly set, with a forward guy to hold down the outboard end of the spinnaker pole. This is where your moderate sized, flat spinnaker does wonders.

Ballooners and Reaching Jibs

Next to spinnakers come balloon jibs and reaching jibs. I have very little use for a big, baggy balloon jib. It is effective only when the wind is "just so"—about broad off the quarter. If the wind hauls a bit aft, you want a spinnaker. If it hauls forward, your bellying ballooner holds the wind in a pocket in the leech, backwinds your working sails, and buries your boat's head in any kind of breeze.

A moderate sized reaching jib, cut flat, is a far better sail than a ballooner—the wind does its work, and then



Sketch showing how the little schooner *Diablo* carried fifteen sails at one time. It is perhaps open to doubt if all these were useful.

spills off the sail to allow new air currents a chance to work. It can be used with the wind forward of the beam—some boats even use one to windward in very light airs, when footing is of more importance than pointing.

Ballooners and reaching jibs are set two ways—flying, or snapped on a stay like a working jib. The quickest way is, of course, to set them flying, though it's sometimes a fierce job to muzzle one when set this way. If you adopt this method, you want a wire luff rope in your jib and a purchase or winch for your halliard, otherwise your sail will sag and belly out to leeward in lubberly fashion. Though it takes a little longer to set and take in, the snaphook method assures a properly setting sail, and is probably the better of the two ways.

Staysails

Yawls and ketches can benefit greatly by carrying mizzen staysails. They should be cut flat, like a reaching jib, and used under the same conditions.

Schooners set main staysails of various sizes and shapes, from the small triangular kind up to the balloon variety, which are sometimes cut so large as to completely cover the foresail, the latter being lowered when the ballooner is set. All these sails have their uses—the little triangular fellows can be carried to windward, while the balloon staysails can only be carried to advantage when the wind is well aft, like a balloon jib. On racing schooners with large crews, all these sails are useful. But on a long ocean grind, as you can't work your crew to death hoisting a different sail every time the wind hauls a point or two, a moderate sized "fisherman" staysail should about fill the bill. It has good area, and is effective on any point of sailing where it will draw, except close-hauled to windward.

Squaresails

Squaresails, while used by a few enthusiasts, are not popular sails. Though effective when the wind is well aft, they require a lot of extra gear, and are troublesome to set and lower. If you could depend on a steady breeze for any length of time, such as a trade wind, fine and dandy—but if you can't, they are more trouble and bother than they are worth. Two or three boats tried them in last year's Bermuda Race, and the owners, from what I can gather, wished they had left them ashore. Stick to a well cut spinnaker—it is quicker and easier to handle, and a far better all-around sail.

Topsails

While topsails aren't light sails, still they are auxiliaries to the lower working canvas, and used principally in light to moderate weather, so perhaps a few words about them won't be amiss here. They are often a big help, not merely because they add to your sail area, but because, in very light weather, they reach up into air currents which skip over the top of your lower sails.

There are three kinds of topsails—working topsails, sprit topsails, and club topsails. The latter two are mean customers to handle, hard to make set properly, and require more or less complicated gear. The small extra area obtained by the use of sprits and clubs is not worth fighting for. Use the regular working topsail—it requires less gear, is far less trouble in every way, and you'll use it oftener and get more benefit from it than from the others.

Ringtails, Watersails, etc.

There are a few more varieties of auxiliary sails, such as ringtails, watersails, etc., which were seen more or less frequently in bygone days, but which are seldom used now. Although *Diabolo* used every imaginable kind of kite in winning the Honolulu Race last year, there were few, if any, fancy sails used going to Bermuda, as the slight benefit they give is hardly worth all the extra gear, trouble and work.

A Few Hints

Have your sheets and guys of liberal size—they won't be as hard on your hands, and are easier to belay.

Let your sheets lift as much as possible—the dead air will escape and let in fresh currents, and you won't backwind your working sails.

Don't use your light canvas when the wind is too far forward, especially when it's breezing a bit. "Slugging sail" under these conditions may make a boat heel and stagger, but it doesn't make her go any faster.

When the wind is well aft, "give her the rags"—this is the time to drive.

Watch your step in squally weather. Light sails are better off in the sail locker than streaming in tatters from the masthead.

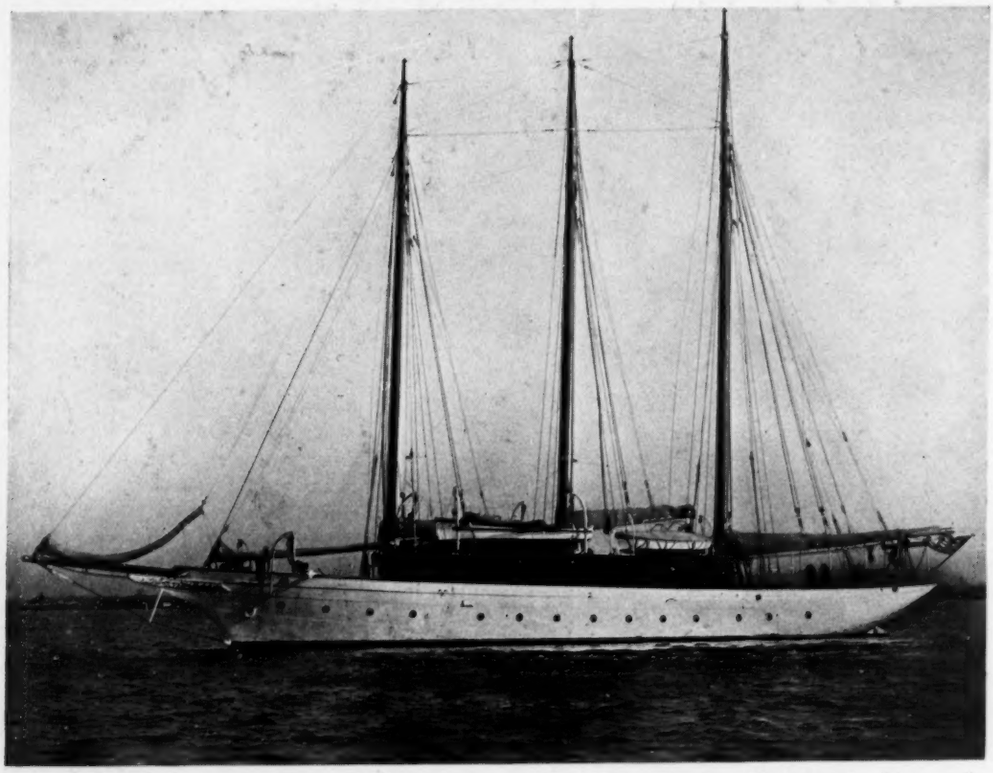
United States Wins Six Meter Races at Havana

A series of three six-meter races, sailed in Havana March 23-24, between two crews from the United States headed by C. Sherman Hoyt and Henry L. Maxwell and two Cuban teams, resulted in a victory for the United States' crews, C. Sherman Hoyt winning all three of the races. The Americans sailed in the two old six-meter boats *L'Esprit* and *Viva* and the Cubans in two new six-meter boats built by them this winter. A full account of the races will be published in the next issue of YACHTING.

Photo by M. Rosenfeld.

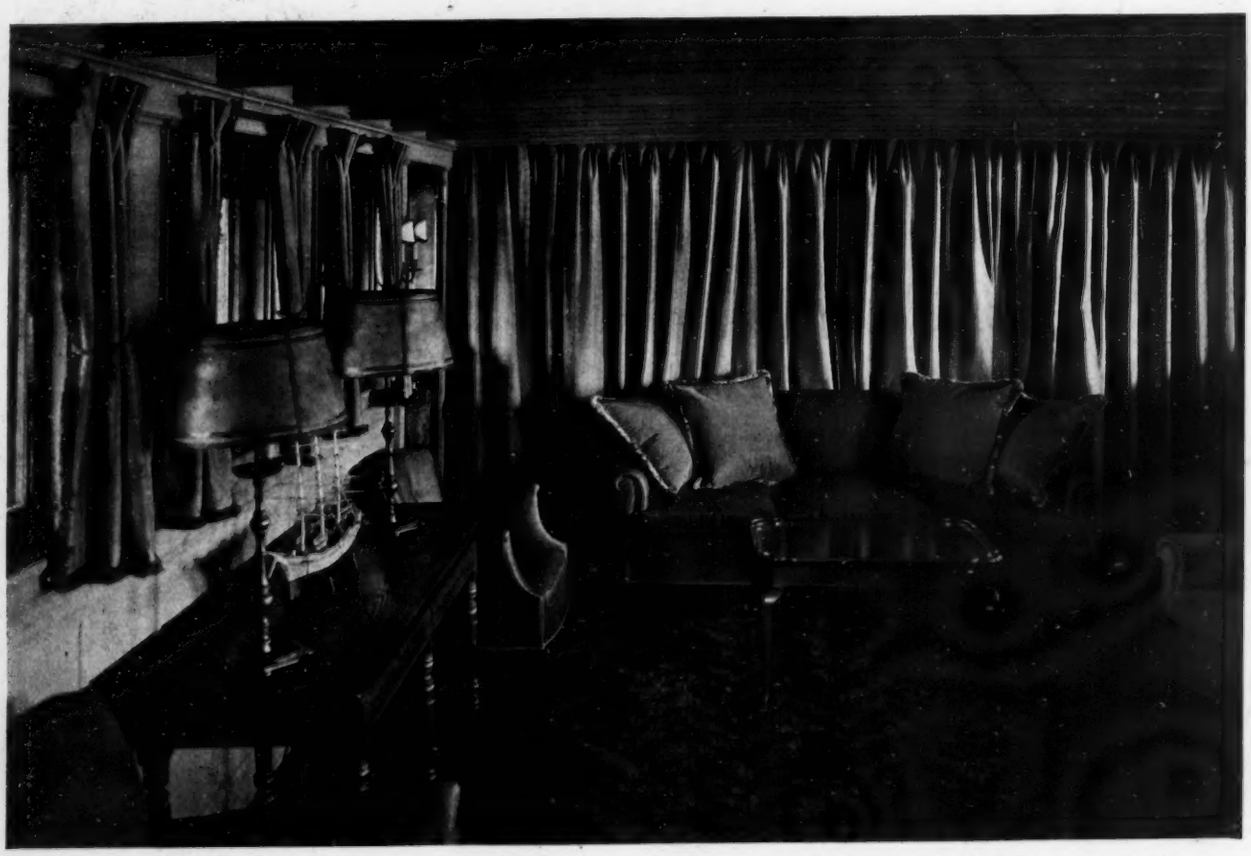
No quarter! Even in sheltered Sound water there is action a-plenty when you give a N. Y. Y. C. 40-footer a rap full in a fresh breeze.

Moby Dick, A New Auxiliary With Many Interesting Features



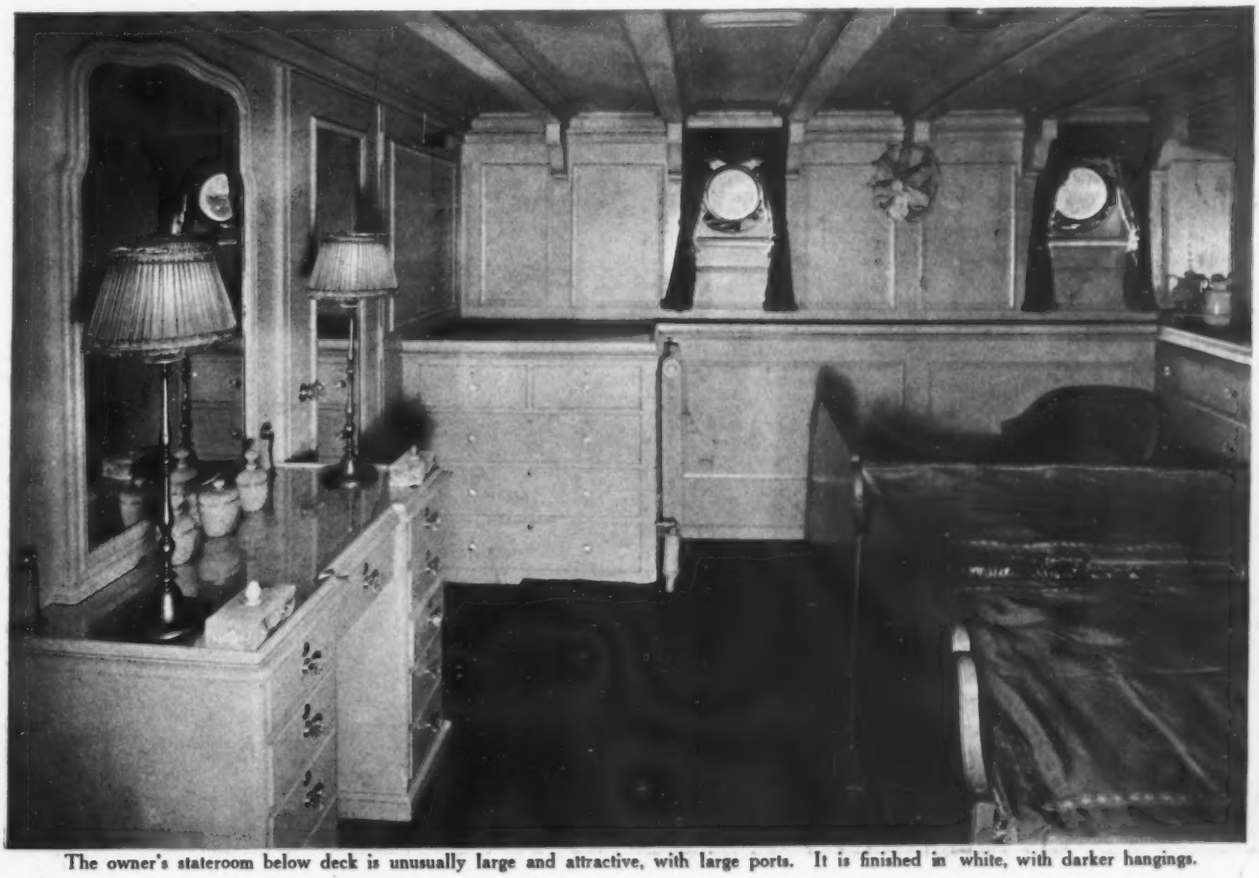
Moby Dick has a three-masted "baldheaded" schooner rig which is very handy. She is easily driven under either sail or power.

MOBY DICK is an unusual type of auxiliary with many novel features that will bear close study. In her, Mr. Henry J. Gielow, her designer, has provided the spacious and desirable deck house of the large power yacht or houseboat without spoiling the sailing qualities of a boat of this type. The quarters below and on deck are attractive and commodious. For auxiliary power she has a 180 h.p. American Krupp Diesel, which drives her at 10½ miles per hour. She is 120 feet long overall, 24 ft. 8 in. breadth of beam and sails on a draft of about 7 ft., exclusive of centerboard. Her owner is Mr. Frederick S. Fish. She was completed last Autumn at the Bethlehem Shipbuilding Company.



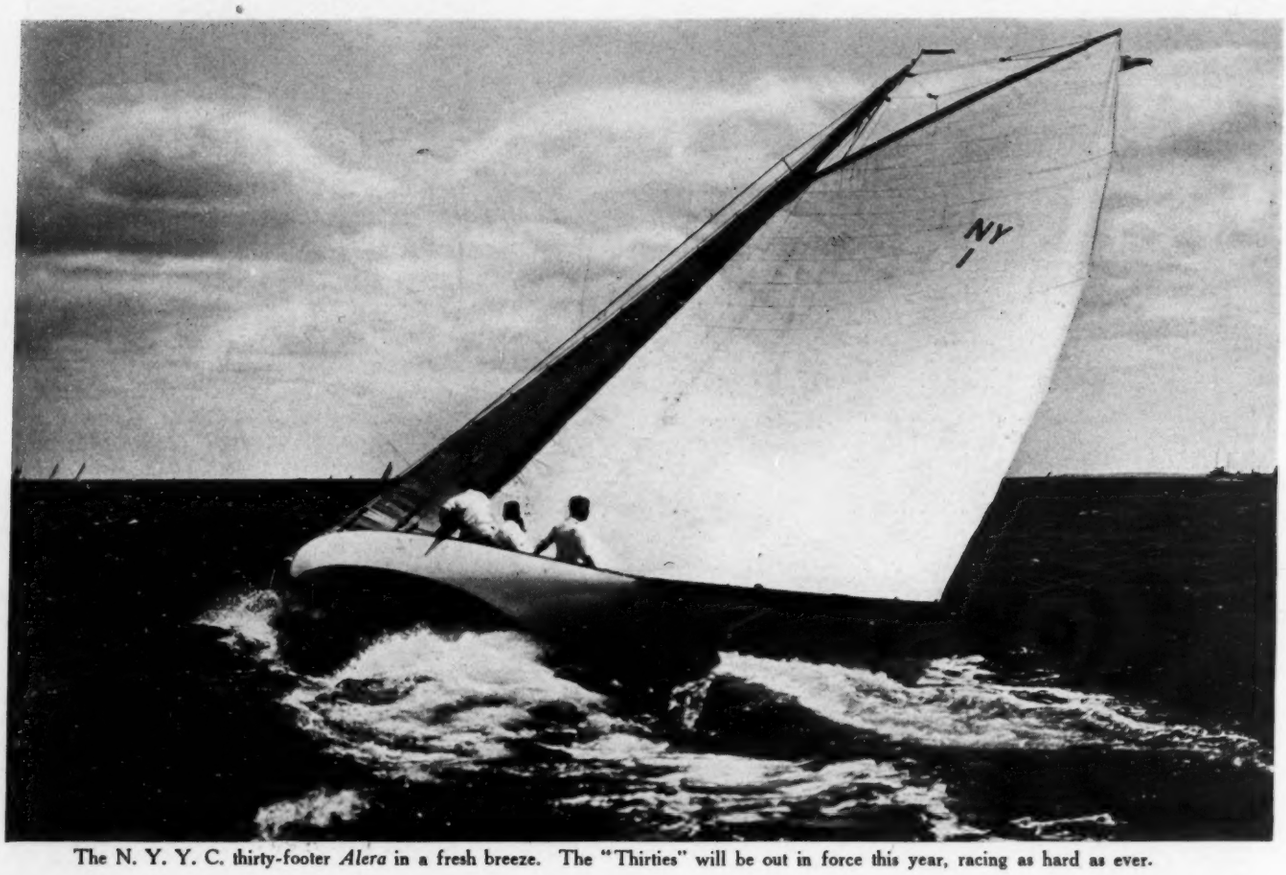
The after end of the main saloon, or living room, in the deck house, separated by portieres from the forward end, makes a very attractive room.

The main deck house contains one long compartment. At the forward end is the dining table, buffet, etc., while aft is a beautifully appointed living room, the whole being exceptionally light and airy.

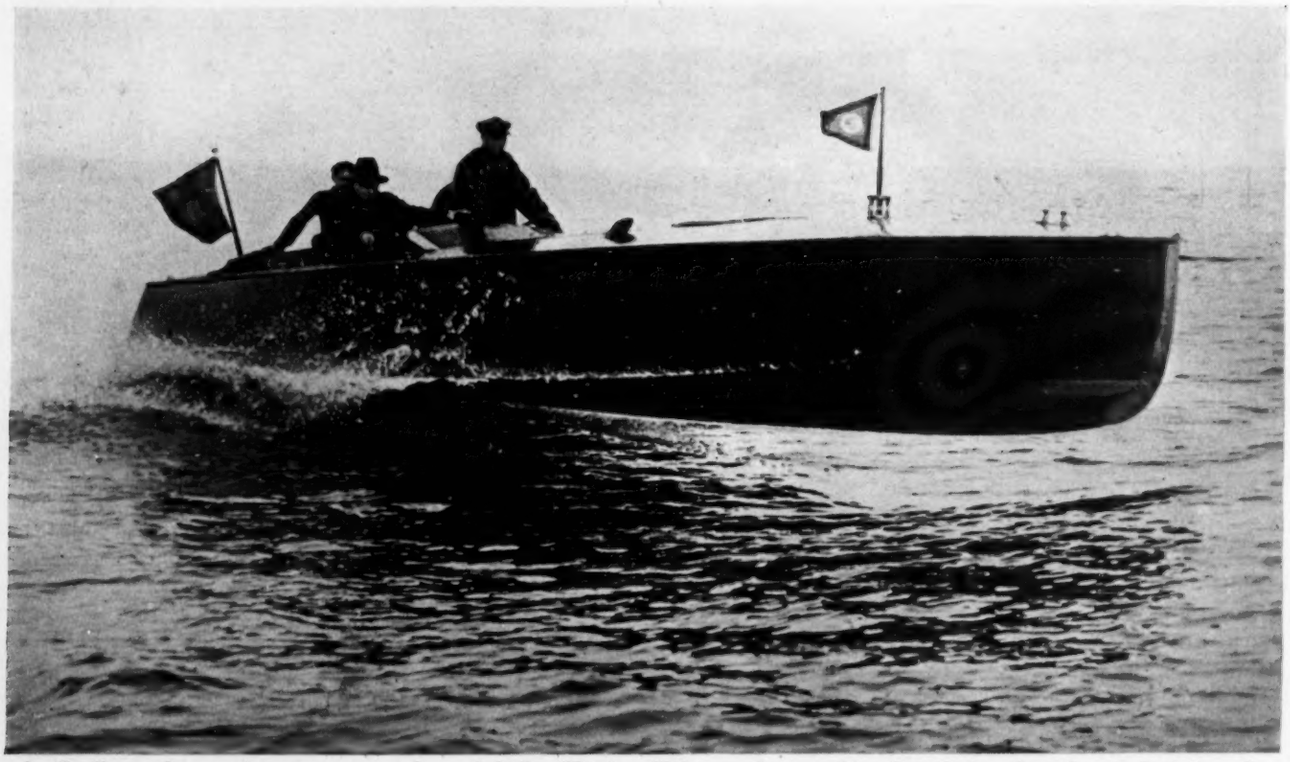


The owner's stateroom below deck is unusually large and attractive, with large ports. It is finished in white, with darker hangings.

When Every Nerve Is Tense!



The N. Y. Y. C. thirty-footer *Alera* in a fresh breeze. The "Thirties" will be out in force this year, racing as hard as ever.



At 42 miles per hour on the water one gets plenty of thrills. This is a 30-foot runabout, on Vigo Bay, Spain, where she was built from the plans of an American designer, J. L. Hacker. The engine is also American make—a 200 h.p. Hall-Scott.

April.

The Spring Overhaul of the Motor

By ROBERT MILLER

Member, Society of Automotive Engineers.

BEFORE getting too deep in the job of painting, it is well for the man with a motor in his boat to consider the engine and power plant. Weather conditions may be such that the time can be spent to better advantage on the inside than on the outside of the hull, and the time to look after the power plant is *before* starting a season, not during the season.

There are certain things about overhauling the power plant that the average boat enthusiast can do—in fact, should do—so that he may become thoroughly familiar with all parts of the motor and the functioning thereof. Major operations, such as boring or grinding cylinders, re-babbitting, installing of new motors, and in some cases, scraping of bearings, should be left to a well equipped machine shop that has had considerable *marine* experience. Avoid automobile shops for marine engine repairs. Automobile engine requirements in the way of fits, clearances, power output for extended periods, etc., are entirely different from those for marine engines.

Starting with the outside of the hull, the propeller should be looked over carefully. From a long experience with boats the writer can safely say that nearly half of the boats in operation have propellers unsuitable to the boat and engine. The wheels are too big or too small in diameter, or the pitch ratio is wrong; experience testing boats with a revolution counter, stop watch and over a given course prompts this conclusion. The propeller is more important than the motor, in that most hulls will operate efficiently only with a certain amount of power, and it is the function of the wheel to convert this power efficiently into boat motion. A man will spend hundreds or thousands of dollars for a new engine, and yet balk at a few dollars for a few propellers to get the best results out of his investment. By all means get in touch with propeller makers, give them facts as to type of boat, power, speed, etc., and see if they cannot improve your speed.

If the old wheel is satisfactory, straighten out slight bends with a hammer and weight; badly bent wheels should be junked, as a loss of speed and economy results, with vibration, worn stern bearing or stuffing box. Observe carefully whether the wheel is securely fastened to the shaft. To do this hold the shaft firmly and rock the propeller slowly back and forth; a slight play in the keyway, Fig. 1, will cause a pound under way, and in time will pound out the key. Look this over carefully. Make sure that the nut which jams the wheel against the shaft taper is up solid and that the brass pin back of the nut is in good condition; corrosion or wear often thins it down just inside the shaft hole. If the wheel is fastened with set screws, observe carefully whether they really jam the wheel against the shaft tightly; tolerate no lost motion here, as you may lose the wheel some day in a tight place.

The next thing to examine is the stern bearing or outside stuffing box, if this type of installation is used. There should be very little wear permitted here, as lost motion allows bad shaft vibration, with a loss of propulsive

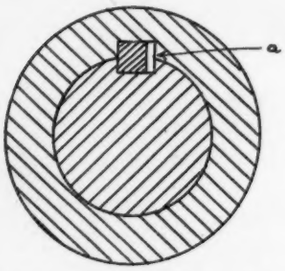


Fig. 1. End play in keyway, as at "a," will cause pounding.

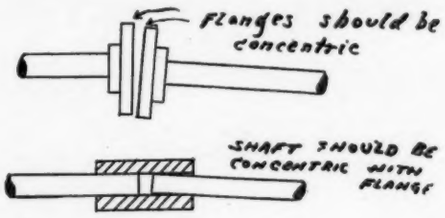


Fig. 2. Faulty alignment of the shaft wastes power.

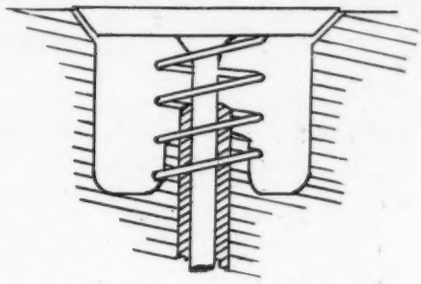


Fig. 3. Place a spring under the valve in grinding.

efficiency. Many boatmen try to overcome wear in the outside stuffing box by tight packing; the result is a loss of power, and when the packing wears the shaft is down on the worn bearing surfaces again. The remedy here is re-babbitting, or a new stuffing box or stern bearing.

Before getting into the motor, finish the outside by close examination of outside water connections and exhaust outlet. The water connections often crumble under the locknut so that there is an elusive leak. Sometimes the short pipe inside suffers from the same trouble, or is cracked. Examine these carefully; examine, also, the rubber hose connecting the metal pipe to the engine pipe; replace if necessary, and be sure to look over the hose clamps. The exhaust pipe outlet should be examined, especially if it is a solid pipe job from engine to outlet. Many sternboards have been pushed off by failure to allow for expansion, either in the form of the pipe itself or by the use of steam hose near the outlet.

Not much is apt to go wrong with the shaft inside the boat, except that it may be bent; the best remedy here is a new shaft, or section thereof. I have never seen a satisfactory straightening job; one place is straightened at the cost of throwing another part out of true. What has been said about the outside stuffing box applies to the inside stuffing box, if one is used. In repacking, or in tightening packing, screw down fairly hard with a wrench and then ease it up about a quarter turn; it is surprising how much power an over-tight stuffing box can consume. Many boatmen renew the packing every year, but, of course, this is determined more by the amount of use and wear than by anything else. Examine the packing to note its condition. In renewing packing it is a good plan to coat same thoroughly with grease. The excess will squeeze out. If a shaft sleeve is used, examine same, and its joints, to see whether it has corroded through.

At the forward end of the shaft we come to the coupling; nothing much goes wrong with this, but the keys or set screws may need attention. Many installations are out of line, consuming much power. By loosening the coupling, and matching the halves of the coupling, if of the flange type, the line-up can be ascertained; if the coupling is of the sleeve or muff type, the propeller shaft should enter the sleeve its full distance without striking against the sides, Fig. 2. It may be a tight fit, but the resistance to entering and sliding through should be uniform. Lining up is done best when the boat is in the water.

The forward and reverse thrust bearings should be attended to next. If of the ball type, the balls and ball races should be bright, not rusty; replace such rusty parts with new parts, and be sure that there is only slight end motion allowed before the thrust bearing comes into action. Many installations, especially old ones, have thrust bearings, in which the end play is so great that the thrust is against the main engine bearings and crankshaft cheeks, causing undue friction and overheating of bearings.

The reverse gear can be easily overhauled by the amateur. Serious trouble here requires either new parts from the maker or renewals by a machine shop. These devices come apart by unbolting, and the parts can be laid out for inspection and cleaning. By all means remove rust from every part, especially the friction plates, and do not assemble until these plates are perfectly smooth, as rust and high spots will tear the metal from other plates. The gear teeth should be examined. If badly worn get new gears from the maker. The little bushings should be tried for side play, and if worn should be replaced, because excessive play here permits the gears to cock sideways and bind. Examine also the little studs upon which the little gears rotate; if worn, replace. Friction plates that are worn too thin should be replaced, as they may be so thin that no further adjustment can be made. Fill the case with thick oil; do not use grease. Examine the toggle joints, the cone, and the brake bands. These should be set up so that the ahead and reverse engage stiffly when the gear is not in motion, because when revolving the action is much easier and wear will soon get the parts to easier working pressures.

We now come to the motor. A very practical job for the amateur is the removal of carbon. If your motor has a removable head you are in luck, as the job is then easy; the correct way in this case is merely to scrape the carbon with an ordinary scraper. Every portion can be reached, interior of heads, valves, etc. The removal of carbon is very important as it has many deleterious effects upon the running of the motor. If the head is not removable, the best way is the removal of the cylinder, but, of course, this may be a big job. The only solution in this case is through the valve caps, or through the spark plug hole. This is the only way it can be done in a two-cycle, except by removal of cylinder. Where

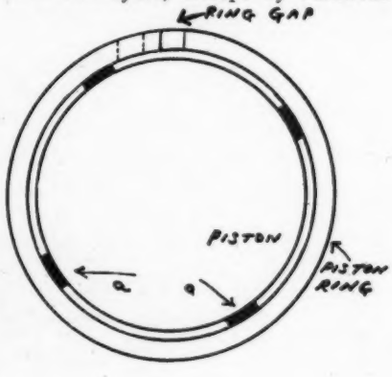


Fig. 4. Strips of metal, "a. a.," between piston and ring permit latter to slide off easily.

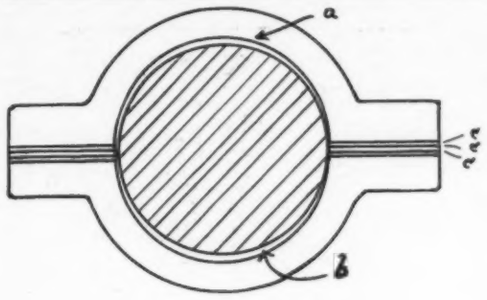
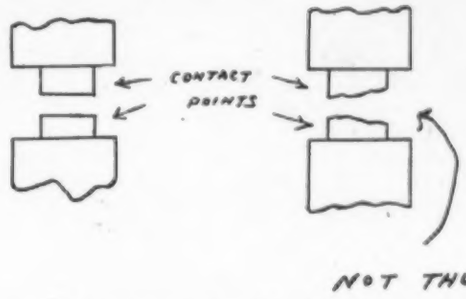


Fig. 5 (left) To take up for the wear at "a, b," thin shims. "c, c, c," are inserted between the halves of the bearing.

Fig. 6 (right) Contact points should be smooth and should break abruptly.



the carbon must be scraped through the valve caps and spark plug hole, various shaped scrapers are necessary to get into all of the corners. As a matter of fact, a thorough job cannot be done in this way. The ports of two-cycle engines often fill up with carbon; look at them carefully, as this may explain your gradual loss of power. See that the by-pass from crankcase to cylinder port is perfectly clear.

With the cylinder head off, or the valve caps removed, the natural step is to regrind the valves, if necessary. The springs should be taken off and tried for elasticity. The exhaust valve spring is the worst offender, as the higher heat on this valve weakens the spring quicker than on the inlet side. The valve is dependent entirely upon the spring to return it to its seat and to the cam surface promptly. With poor spring action, the valve will stay open when it should be holding compression. The bevel valve-seats in the cylinders should be examined; if badly pitted, they must be refaced. This is really a shop job, although it is possible that a clever amateur with the proper stock valve reseating tools can do it. The bevel seat on the valve itself is often badly pitted, requiring refacing. Very small pit marks can be removed in the regrinding operation. Before regrinding, however, there is one point that must not be overlooked. The seats may show up well, yet the valve might be worked or recessed as sometimes happens. This must be removed by forming a new seat. With seats now in good shape, it is necessary to ascertain whether proper contact is had between the valve and its seat, and if it bears evenly entirely around its circumference. It is only by perfect contact between the two that gas-tightness can be secured, with consequent good compression and power.

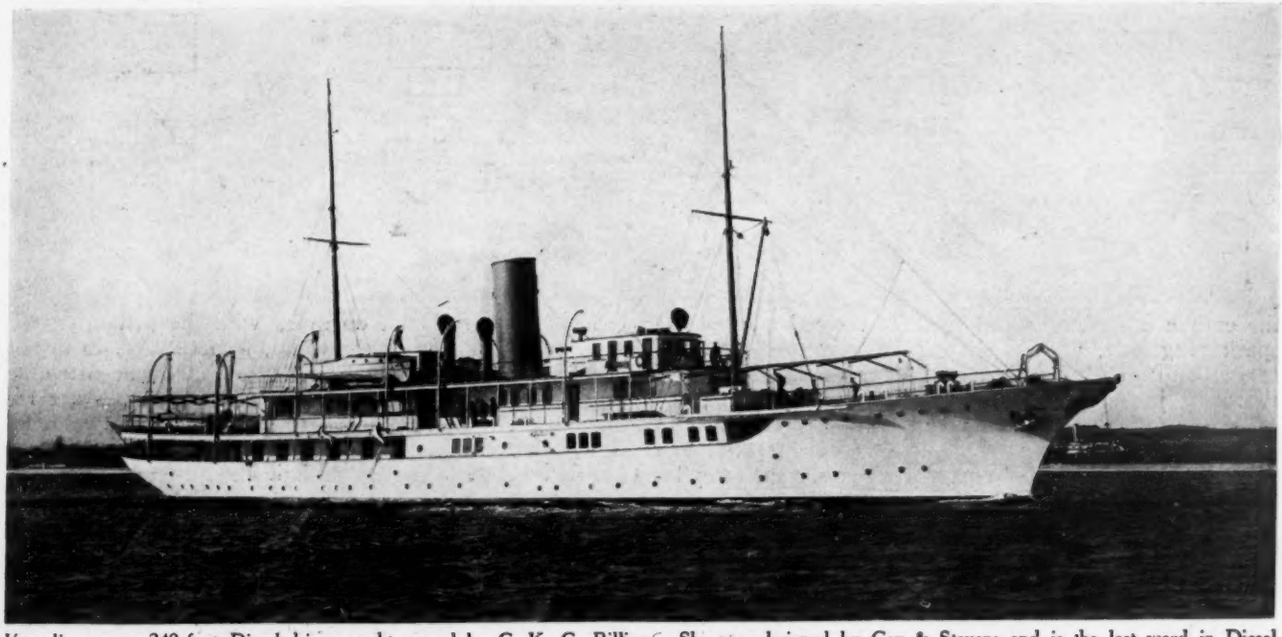
If the valves are in fair shape, only a little touching with the fine grinding compound is required; the purpose is not to remove a lot of metal but merely sufficient to permit the contact to be perfect and unbroken. If the valves are in poor shape it will be necessary to use the coarse compound first, finishing up with the fine. The amateur is more apt to overgrind than undergrind, as he figures that if a little is good, more is better. The grinding process is to place a little grinding material, usually mixed with a little oil, on the valve seat, press same against the seat in the cylinder, oscillate the valve with a screw driver, preferably a screw driver bit set into a brace, lifting the valve occasionally to start from a new point. A spring under the valve lifts it automatically, obviating the need for manually lifting the valve. The placing is as shown in Fig. 3. Be very careful to wash the valve, seat and surrounding surfaces with gasoline to remove the grinding material, because any residue reaching the cylinder bore will soon render the piston rings, etc., useless. Very often the valve cap gaskets and cylinder head gaskets require replacing; it is poor economy to save here, as these places are frequent sources of leakage.

The amateur cannot do much with the piston, except to clear the head of carbon and, if necessary, to install new rings. Rings five or six years old can often be replaced with profit, as some of the new types are remarkably efficient, and give much better results. Even if new rings are not installed, the carbon, etc., in the grooves between the rings and the pistons should be thoroughly removed, as this prevents the free expansion and movement of the rings. The rings should show an unbroken circle of bright metal where the rub comes on the cylinder; dark and discolored spots show where the leakage takes place. Play between the wrist pin and piston bosses must be remedied by the shop. Piston rings are removed by placing small strips of metal between the piston and the ring, one at a time, carefully springing the ring over the strip. When fully free from the piston the ring is slid over the strips, as shown in Fig. 4. The strips, of course, should be long enough so that the ring will not snap back into any of the other grooves. The rings are replaced in a similar manner.

The crankcase will require, first of all, a thorough cleaning inside and outside with gasoline. Be sure that all metallic particles are out of the base, especially from the oil sump, if one is provided. If the base is in halves, a new paper gasket will be required at the joints and handhole plates. Some bases have the bearings babbitted, others have separate shells, either of babbitt metal or bronze, babbitt lined. I do not believe that amateurs can do babbitting jobs satisfactorily; there is enough for them to do on a motor without jeopardizing this important part.

Most of the important motor bearings are in halves, with means of adjustment for wear. This is accomplished by bringing the halves together with the bolts or screws provided. If the halves were set tightly against each other it would be necessary in order to bring the halves together when the bearing has worn away from the shaft to machine or file away some of the contact surface. To obviate this, the halves are made smaller, and the extra portion is provided in the shape of small metallic or fibre "shims," Fig. 5. To bring the parts together when the bearing is worn it is only necessary to file these small shims, or, if they are made up of several thicknesses or laminations, to remove one or more to make up for the wear. But, the wear is not always uniform, so that the bearing hole itself has to be corrected. If badly worn, it is absolutely necessary that same be bored out by the shop, and scraped afterward. If slightly worn, the shaft surfaces, "journals," are smeared very lightly with Prussian blue, the bearing parts screwed together with the shims, and the shaft rotated or rocked backward and forward slowly. This has the effect of marking with blue only those surfaces which bear on the journals; these are the "high spots," and should be scraped away lightly with a scraper. By lightly is meant removing a layer perhaps one-thousandth of an inch in thickness. The journal is then

(*Continued on page* 316)



Vanadis, a new 240-foot Diesel-driven yacht owned by C. K. G. Billings. She was designed by Cox & Stevens and is the last word in Diesel yacht construction, with Sperry stabilizer and Gyro compasses. She has 2000 h.p., which develops a speed of 14 knots.

Bermuda Race Entries

ENTRIES are being received in most gratifying numbers for the Bermuda Race, scheduled to start on June 21st from New London. Four new boats have been entered by their owners since the last list was published.

These include the *Black Duck*, owned by Dr. Alexander Forbes of Boston, a member of the Cruising Club of America. *Black Duck* is a schooner, 65 feet long over all, designed by Crowninshield. She is an exceedingly smart little vessel and should make any of the fleet hustle to finish ahead of her. The *Lloyd W. Berry* has been entered by the Bay View Y. C. of Detroit, several members of which have chartered her from Roger Griswold for the race. This is the first time a Detroit crew has been in a Bermuda race, but the organization is composed of real sailormen who won't feel lost on blue water and who will sail the famous packet from start to finish.

Another new entry is the schooner *Quita*, 60 feet long, owned by George Woodward, Jr., of Philadelphia, a member of the Philadelphia Corinthian Y. C. She is a new boat from designs by J. Murray Watts, and she is about ready now to take the water. Frank Draper is getting the crew together that took the *Flying Cloud* down in last year's race, and while her official entry has not been made, we are assured that she will be at the line.

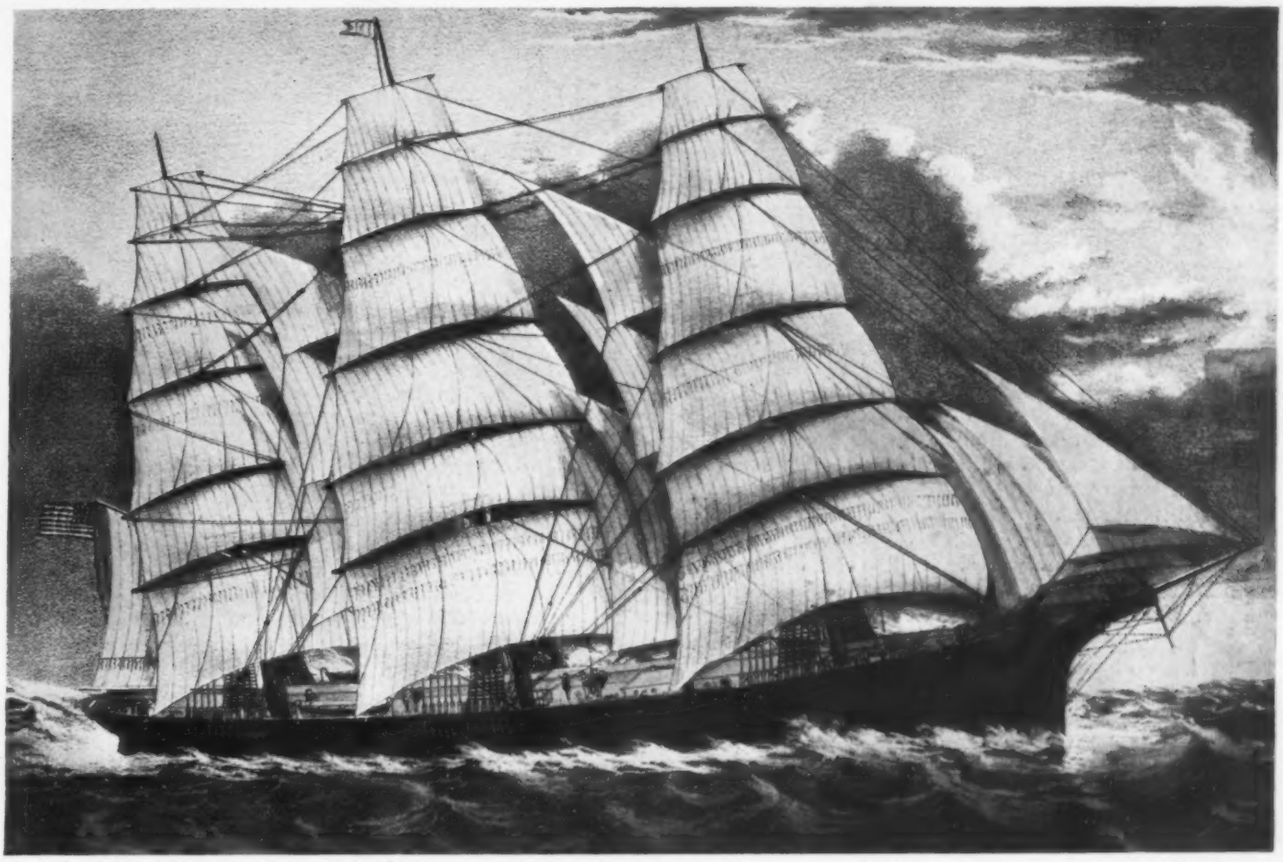
The Royal Bermuda Y. C. Syndicate has purchased the 74-foot *Sylvia II*, a new fisherman type schooner, built in Nova Scotia last year, and have entered her in place of the pilot sloop whose entry they had formerly made tentatively. This boat, together with the *Dainty*, winner of the second prize in her class last year, and the *Northern Light*, owned by T. A. Ensor and hailing from Bermuda, makes three entries from the Onion Patch, and as all of them will be well sailed it looks as if some of the silverware will be tagged for shipment to Bermuda after the race is finished.

So far only one entry for the power boat division has been received. This is the *Jean*, a new 40-footer, whose plans appear elsewhere in this issue. She is entered by Gordon Munroe of Boston.

Here is the full list of entries received to the end of March:

Schooners	Length	Owner
Sylvia II	74	Royal Bermuda Y. C.
Flying Cloud	67	Lawrence Grinnell
Black Duck	65	Alexander Forbes
Sunbeam	60	S. D. Baker
Quita	60	George Woodward, Jr.
Lloyd W. Berry	60	Bay View Y. C.
Arcenciel	55½	M. R. Smith
Vanguard	55½	B. H. Inness Brown
Primrose IV	50	W. H. Huggins
Gauntlet	50	A. E. Dingle
Malabar V.	49	John G. Alden
Northern Light	45	T. A. Ensor
Harpoon	40	Kenneth Stephens
Wanderer	37	David Henwood
Yawls and Ketches		
Memory (yawl)	58	R. N. Bavier
Micco (ketch)	51	H. E. R. Hall and C. Elliott
Anna A.	42	Gordon Prince
Dainty (yawl)	37½	A. A. Darrell
Sea Call (ketch)	37	Dr. L. Nietsch
Sou'wester (ketch)	40	W. E. Baker and W. Atkin
Power Boat Division		
Jean	40	Gordon Munroe

Cheerio, a 37-foot power schooner, designed by Charles D. Mower for George P. Metzger. This is the type of boat for which the Power Boat Division in the Bermuda Race was made.



The ship *Three Brothers*, originally the steam yacht North Star, owned by Commodore Vanderbilt, whose picture appeared in the February number. She was changed to a sailing ship in 1866 and was for several years in the New York-San Francisco-Liverpool trade, her best passage from San Francisco being 104 days. From an old print by Currier and Ives.

Power Boat Rating Rule

The rule adopted for this class is a combination of the new A. P. B. A. rule for cruisers, and the old Seawanhaka rule for sailboats. Then, as the rig is small and the engine the principal driving power, the power factor is given twice the value of the sailing factor. This rule as applied to several existing boats works out in an equitable manner and produces fair ratings, and while no claims are made by the committee that this is a scientific formula, it at least takes in all the main factors, measures engine power, sail area (sail power), length and midship section, which is a measure of displacement, and it is at least worth a trial. The formula is as follows:

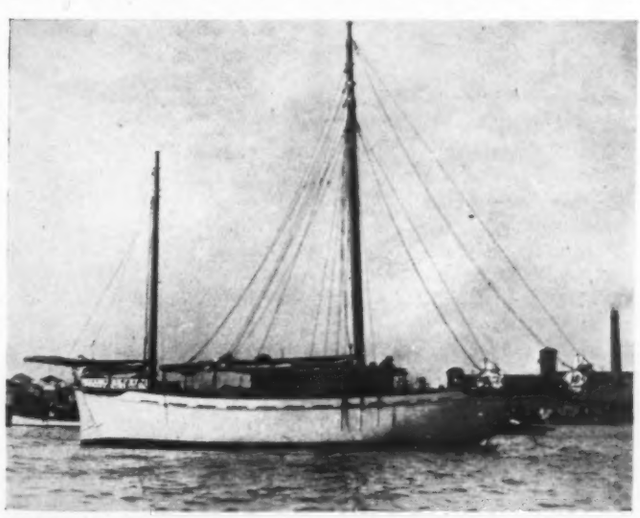
$$\frac{2\left(\frac{2\,AN}{MS}+25\right)+\left(\frac{L+\sqrt{SA}}{2}\right)}{3}=R$$

In which

A=Area of one piston in inches.
N=Number of cylinders.
MS=Area of midship section, in feet.
L=L. W. L. in feet.
SA=Sail area in feet.

Sail area must be equal to at least fifteen square feet per foot of L. W. L. length, spars well proportioned and stayed. It is felt that this is the minimum area that will permit the boat being handled under sail alone.

Tanks must be well made and properly secured. Tank capacity to depend upon power and boat's ability under sail. Time allowance to be a combination of power and sail boat tables, the former having twice the value.



The 47 foot ketch *Shanghai* in which three Danish yachtsmen are making a voyage from Shanghai to Denmark.

A Long Voyage in a Small Boat

Leaving Shanghai, China, February 17th of last year, the little 47-foot-over-all ketch *Shanghai* started on a voyage to Denmark. Proceeding down the China Sea in rough weather, she crossed the Indian Ocean, rounded the Cape of Good Hope, and was last reported at Cape Town, her crew of three all well. By now she should be approaching the English Channel.

Jib-Headed *Versus* Gaff Rig

Showing Why the Tall, Narrow, Gaffless Sail Is the Most Effective on the Wind

By WESTON MARTYR

SAILORS are a most conservative class. They have to be; for they match themselves, their boats and their gear against that most implacable and merciless of opponents—the Sea. A seaman, very wisely, will use only those things which have proved their worth. Consequently, when that extreme rarity a new and more efficient rig is devised, many years must pass before it is generally adopted, however great its inherent excellence may be.

I have no doubt that those old seamen who rowed their galleys about the Mediterranean hoisted the first squaresail with some uncertainty and apprehension; and one can be sure of the jeers which greeted the genius who suggested bending on bowlines to the leech with the idea of sailing *into* the wind.

The same spirit pervades us still. The jib-headed rig has been waiting a very long time for its superiority over the gaff rig to be generally recognized, and we are only now waking up to its greater efficiency and handiness. Indeed some of us are still asleep.

Those who deny the superior efficiency of the new rig must admit, at least, its handiness. With no gaff swinging about aloft there is obviously less wear and chafe on the gear; and in fact there is less gear up there to chafe. The sail is easily and quickly set, taken in and reefed. To jibe it is a simple matter and it is not so liable to jibe on its own account as is a gaff sail. With

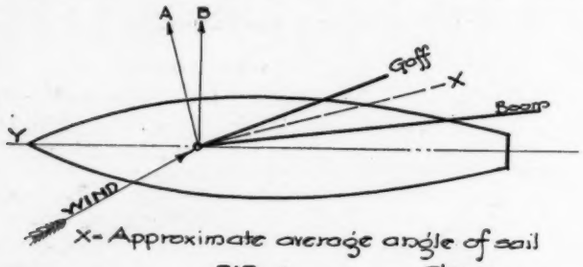


FIG. 1

the boom broad off there is no gaff to foul the spreader or backstays and in a bobble of sea the jib-header will sleep and hold a light air that would be slatted out of a sail by a gaff.

Opposition to the jib-headed rig is chiefly based upon the erroneous idea that an excessive length of spar is necessary to secure an effective area of sail. The mast, admittedly, is tall, but the difficulty of staying it has been effectively overcome, and there is no other disadvantage in mere length unless it be the extra weight high up. Balance this, however, against the weight of a gaff and topsail yard, plus their gear, and there will be very little in it.

The most important fact to be taken into consideration is that the tall, narrow sail is more effective on the wind than the low, broad form. Consequently, to secure the same degree of power, a smaller area of sail is necessary with the jib-headed rig than is required by the gaff sail. Thus it *is* possible to get an effective area of sail without excessive length of spar.

It may be of interest to those who have not studied the subject to learn exactly why the tall narrow sail is the most efficient form. First, then, it is essential to grasp the fact that the effect of wind pressure on a sail is *a thrust perpendicular to the plane of the sail.* In Fig. 1, representing a boat sailing full-and-by, the direction of this thrust is indicated by the line O A. The sail, in its turn, tries to force the hull also in the direction

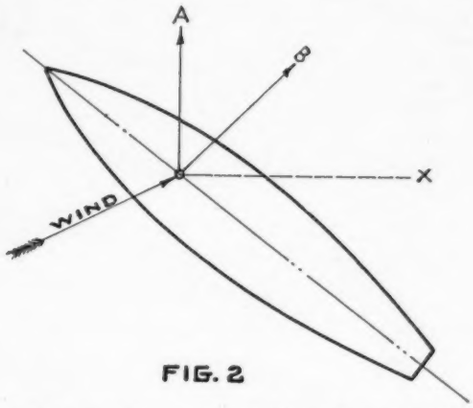


FIG. 2

O A, that is more towards B than towards Y, or more to leeward than ahead. The resistance of the water to the hull, however, prevents any appreciable motion towards B, but only slightly retards motion towards Y. This explains how it is a vessel can sail against the wind.

Now the direction of thrust is measured by the angle A O X. An amount of thrust equal to B O X is wasted in the effort to drive the hull to leeward. The remaining angle A O B measures the amount of forward thrust. If by any means we can increase the angle A O B, then the angle B O X is correspondingly decreased. In other words, by increasing A O B we secure a greater drive forward and less thrust to leeward.

To achieve this very desirable result O A must be inclined forward or O B aft. This can be done, in practice, by easing the sheet and bearing away as shown in Fig. 2, but our problem here is to arrive at a *form* of sail which will produce a greater amount of desirable A O B angle, yet still allow us to steer our course full-and-by. We will, therefore, keep our boat sailing along as in Fig 1 and prove that the angle A O B is greater when we hoist a jib-headed mainsail than when a gaff sail is used.

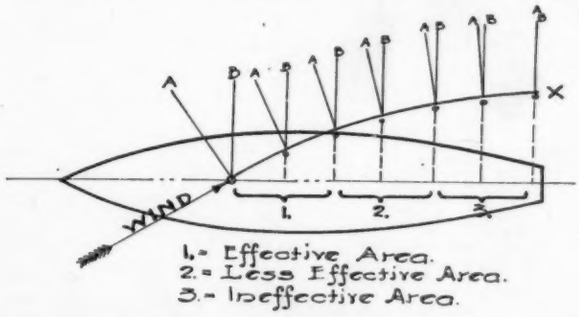


FIG. 3

In Fig. 1 the average angle of the sail plan is shown as a straight line. In practice this line is curved, somewhat as indicated by the line O X in Fig. 3. In this diagram the section of the sail plane has been divided into equal parts, with O B and O A lines produced on each section, instead of doing this once only for the whole sail as in Fig. 1. The result is a series of our old friends the

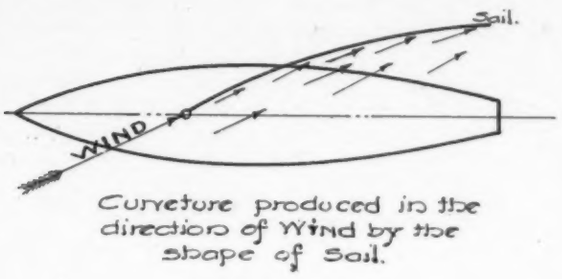


FIG. 4

A O B or "push ahead" angles, which measure the effectiveness of each section of the sail. It will be seen that the A O B angle is greatest at the luff, becomes less and less the further away from the luff we go and finally vanishes altogether at the leech. This shows that, on a wind, the effective area of a sail is that part of it nearest the luff. The middle helps in less degree to push ahead, while the leech merely presses the hull to leeward. Indeed, if we also consider the curvature produced in the direction of the wind by the shape of the sail, Fig. 4, we find that the cloths at the leech are retarding the forward progress of the hull by friction.

It has now been shown that the more luff we can get on a sail the more effective that sail is in driving a boat ahead when the wind is anywhere forward of the beam. The only means of securing more luff is by increasing the hoist of the sail.

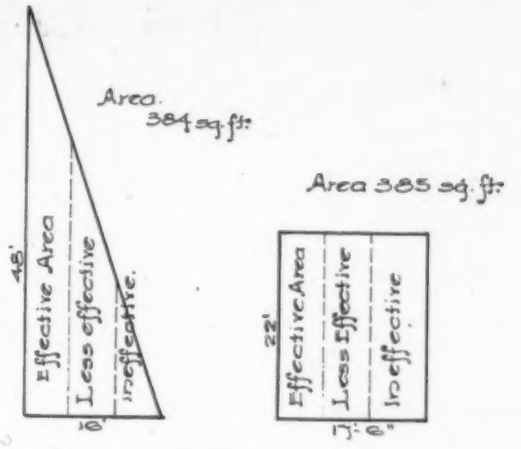


FIG. 5

Fig. 5 shows two sails of equal area but of different form. One represents a jib-headed and the other a gaff-rigged sail. The types have been made extreme as the facts the diagrams convey can thus be more easily seen. Fig. 5 shows that the jib-header has nearly twice as much of that effective, forward driving area at the luff as has the gaff sail, while the latter rig gives the greatest proportion of leeward thrusting, retarding after area. Before the wind, of course, both forms of sail are (theoretically) equally effective.

Radio for the Seafarer

What the Wireless Telephone Has Done for Arctic Explorers or Those Making Long Voyages, as Shown by the Present MacMillan Expedition in the Schooner *Bowdoin*.

WHEN those readers of YACHTING whose boats were snugly laid up for the winter read in the December issue as they stretched out before a comfortable fire of the opening of the Chicago Yacht Club's new home by one of the club members who was marooned in the far north, and heard how the concert given at that time in Chicago was transmitted to the schooner *Bowdoin* in winter quarters only some eleven degrees from the Pole, how many of them realized just what this meant to those men spending from two to three years in the Arctic?

Or, for that matter, how many of them even now fully appreciate just what the radio and wireless telephone is doing for the men who go to sea? Instead of being cut off from communication with the outside world as soon as the land is dropped, with no knowledge of what is going on, with no chance to get warnings as to storms or dangers to navigation, and dependent entirely on their own resources, the radio, as it has been developed, now keeps one in daily or even continuous touch with what is taking place in the world, gives him weather forecasts, furnishes amusement and, in fact, makes it possible to communicate with home or office as freely as if one was sitting next to a telephone ashore, provided there is both a receiving and sending set aboard.

In the Bermuda Race last year nearly half the boats carried receiving sets. These proved of great value even though the radius of some of them was not great. For the better part of the trip the boats could pick up the coast broadcasting stations, they could always get the "tick" from Arlington to check chronometers, and as Bermuda was approached, the Islands could be picked up and, by centering the sound on the loop aerial, the general direction of the Islands could be located even without any special direction or bearing indicators.

In MacMillan's case, to show the value of radio, one need only remember the isolation of former polar exploration parties, on from three- to five-year voyages, cut off entirely from all communication with the rest of the world, and of the long polar nights with nothing to relieve the monotony. On this last expedition of the *Bowdoin* MacMillan had an efficient wireless sending and receiving telephone set installed, and has been in communication with the United States through different stations, if not continuously at least frequently enough for us to know where he is and how his small ship's company is faring; and, in turn, he has been able to get news of what is going on in the world and, most important of all, to get entertainment through the long winter night which is frequently a period of inactivity for the crew and the Eskimo with them.

To Mr. E. F. McDonald, Jr., of Chicago, is due largely the credit for making the installation on the *Bowdoin*. In order to test out the set and to see if it was in good working order, Mr. McDonald accompanied the *Bowdoin* to Battle Harbor, Labrador, on her last trip North. What he says of the value of the wireless telephone on such a trip as this should prove interesting. This is the first radio and transmitting set as far as we know to venture into the land of perpetual ice and snow.

"There is not much room to spare on the *Bowdoin*, as you can imagine when I tell you all that she carries," says McDonald. "Not only is every available inch of space below decks used, but the main deck is crowded with barrels of fuel and lubricating oil, and miscellaneous provisions of an imperishable nature. The *Bowdoin* is only 89 feet over all—one of the smallest ships that ever ventured on an Arctic expedition—yet into her hold, amidships, have been packed not only provisions and sup-

plies sufficient to sustain the party several years, but also quantities of dolls, clothing, knickknacks and phonographs, these latter to be presented to the Eskimo of the most northerly tribes. It was with difficulty that the main hatch was battened down.

"Abaft the hold is the engine room, a solid mass of machinery and enormous fuel tanks for kerosene, which give this ship the greatest cruising range of any small ship in the world. In the forward end of the engine room are two ¾ K. W. Delco generators and two complete

The schooner *Bowdoin* leaving Boothbay for the Far North on the MacMillan Arctic Expedition.

sets of 32-volt storage batteries. At present, one generator and set of batteries are being used to light the ship. The other generator and batteries are for the radio, which consumes a great deal of power in hurling its wireless messages back to civilization.

"Back of the engine room, in the after end of the ship, are the captain's quarters, very small and compact. The forward end of the ship is taken up with the forecastle, comprising the radio room, living and sleeping quarters of the crew, and the galley. The radio room is in the peak of the forecastle, berths for six men are along the sides, the mess table is in the center and the galley in the after end of the forecastle.

"I tell you, things were lively in the forecastle when the radio started! In such close quarters, it made as much noise as a steam locomotive tearing up and down the passage way! The first night it was in operation the cook arose in great consternation, believing bedlam had broken loose. He rubbed his eyes furiously, finally discovered the source of the disturbance, and exclaimed: 'I have been shipmates with a lot of powerful snorers, but never with such a noisy beast as that there animal.' Strangely enough, however, a few nights' companionship with the set made its noise as undisturbing as the town clock to a good New Englander, and every man of us was able to sleep as soundly as a village constable.

"Our first stop in Labrador was in back of Greeneley Island, at night and under cover of fog. As we entered each of the Labrador ports on the way North a group of small dories would invariably put out from the shore, and a race would start among the fishermen to see which could reach us first. After the usual preliminaries of getting acquainted they would ask: 'Is there a doctor on board?' Next, they asked for clothing of any description. We found many of the hardy fishermen, bronzed, weather-worn, and thin, clothed in a pair of old cast-off-looking oilskin trousers, a threadbare sweater, a battered pair of boots, and nothing more.

"Wherever we went, people were all agog with excitement over the radio carried on board. They were glad of visitors, glad of the chance to exchange courtesies, but glad especially to view the equipment of the *Bowdoin*. Their wonderment struck its height when they listened to voices and music from far-away places in the United States, the land which they know but little, and none had seen. It was gratifying to notice their frank and open reaction, so childlike, so sincere. Electric lights, telephones, and such developments which have long been necessities with us, are of course only names to these people.

"On July 4th, with the icebergs completely surrounding us, we received the returns of the Dempsey fight. The pool which we started on board for the man who guessed the number of rounds that the fight would last was temporarily won by Jaynes, the engineer, and paid to him when the fight had gone to twelve rounds, that being the number he selected. But the money was promptly taken away from him when the fight went on to fifteen rounds.

"In Battle Harbor, Labrador, where I left the expedition, we were met at the dock by the doctors and nurses of one of those wonderful institutions, the Grenfell Mission, where self-sacrificing men and women give their time and energy without remuneration, caring for the sick and injured that are brought to them from miles around. Contact with them was especially delightful.

Donald B. MacMillan in the radio room of the *Bowdoin*.

"Captain MacMillan and his crew were well and happy when I took my leave. One comforting thought over the separation was in realizing that communication with them would not be cut off as it had been until their return to civilization on previous trips, but would be maintained by the first radio outfit into the land of the Eskimo.

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The last stand of the square riggers! In the nitrate ports of the west coast of South America one still sees the stately ships, mostly British, French and Scandinavian, that are kept alive in the nitrate trade.

Nitrates

ALL alone I went a-walking by the London Docks one day,
For to see the ships discharging in the basins where they lay,
And the cargoes that I saw there, they were every sort and kind,
Every blessed brand of merchandise a man could bring to mind;
There were things in crates and boxes, there was stuff in bags and bales,
There were tea-chests wrapped in matting, there were Eastern-looking frails,
There were balks of teak and greenheart, there were stacks of spruce and pine,
There was cork, and frozen carcasses, and casks of Spanish wine,
There was rice and spice and cocoanuts, and rum enough was there
For to warm all London's innards up and leave a drop to spare.

But of all the freights I found there, gathered in from far and wide,
All the smells both nice and nasty from the Pool to Barkingside,
All the harvest of the harbors from Bombay to Montreal,
There was one that took my fancy, first and foremost of them all.
It was neither choice nor costly, it was neither rich nor rare,
And in most ways you can think of it was neither here nor there,
It was nothing over beautiful to smell nor yet to see,
Only bags of stuffy nitrates—but it meant a lot to me!

I forgot the swarming stevedores—I forgot the dust and din,
And the rattle of the winches hoisting cargo out and in,
And the rusty tramp before me with her hatches open wide,
And the grinding of her derricks as the sacks went overside;
I forgot the murk of London and the dull November sky;
I was far, ay, far from England in a day that's long gone by!
I forgot the thousand changes years have brought to ships and men,
And the knots on Time's old log-line that have reeled away since then,
And I saw a fast square-rigger with her swelling canvas spread,
And the steady Trade wind droning in her royals overhead,
Fleecy Trade clouds on the sky-line—high above the tropic blue—
And the curved arch of the foresail, and the ocean gleaming through.
I recalled the Cape Stiff weather, when your soul-case seemed to freeze,
And the trampling, cursing watches, and the pouring, pooping seas,
And the ice on spar and jackstay, and the cracking, volleying sail,
And the tatters of our voices blowing down the roaring gale.
I recalled those West Coast harbors just as plain as yesteryear,—
Nitrate ports all dry and dusty, where they sell fresh water dear.

Little cities white and wicked on a bleak and barren shore,
With an anchor on the cliff-side for to show you where to moor,
And the sour red wine we tasted, and the foolish songs we sung,
And the girls we had our fun with in the days when we were young,
And the dancing in the evening down at Dago Bill's saloon;
And the stars above the mountains, and the sea's eternal tune.
Only bags of stuffy nitrate from a far Pacific shore
And a dreary West Coast harbor that I'll surely fetch no more,—
Only bags of stuffy nitrate, with its faint familiar smell
Bringing back the ships and shipmates that I used to know so well . . .
Half a lifetime lies between us, and a thousand leagues of sea,
But it called the days departed and my boyhood back to me!

C. Fox Smith.

Navigating Equipment for the Bermuda Race

By HERBERT L. STONE

IN preparing for the Bermuda Race, the skipper, or whoever does the navigating, should give careful attention to his navigating equipment. Bermuda is a very small spot to find and it will take accurate navigating to hit St. David's Head on the nose, particularly if conditions are not suitable for getting reliable sights. I suppose it is possible to make the Islands on dead reckoning, but I have never heard of its being done in a sailing vessel. And as navigation is at best difficult in a small boat, adequate equipment is necessary.

In the first place, a suitable log book should be provided. It was noticed that many of the boats last year had very inadequate books for keeping records of the ship's position, and many of the computations for position were made on scraps of paper which were collected later from various parts of the cabin when the navigator wanted to find his position at any specified time. Entry should be made in the log book of course, readings of the log, state of wind and weather, etc., every hour. This was often neglected in last year's race, so that it was hard for the navigator to construct a good dead reckoning position, and consequently when there was a wide difference between the observed position and the D. R. position he frequently did not know on which to rely.

After getting the log book in which to keep the records, we must see what instruments are necessary to collect the data to put into it. In the first place. there are the charts. Those that should be provided are a general chart of the Atlantic Coast from Halifax to Hayti, on which the course from Montauk to Bermuda can be laid off. This chart is number 1411. Then a detailed chart of Bermuda is necessary, showing the reefs and the lights on the Island. A still further detailed chart of Hamilton Harbor can be purchased, but is not necessary, as in most cases the boats take a pilot after finishing at St. David's. Also, plotting charts should be had for plotting the ship's position. These are handy whether the St. Hillaire or any line of position method is used.

Also a star chart may come in handy for obtaining the position of any stars or planets that may be used, although, as a matter of fact, it is exceedingly difficult to get star sights on a small boat.

As to compasses, two must be carried. One is the standard compass, which will be carried in the binnacle, and the other a spare compass, for use in emergency. Both of these should be of good diameter, not less than five inches, while six or seven inches is to be preferred, as it makes steering easier and more accurate. The standard compass should be compensated and adjusted for deviation before the start unless the error is already known accurately. Don't wait until the day before the race to have this done. If you can do it yourself, swing the ship in plenty of time to make out a deviation card or to compensate, so that you won't have to worry about it the last day or two, when you will have plenty of other things to occupy your attention.

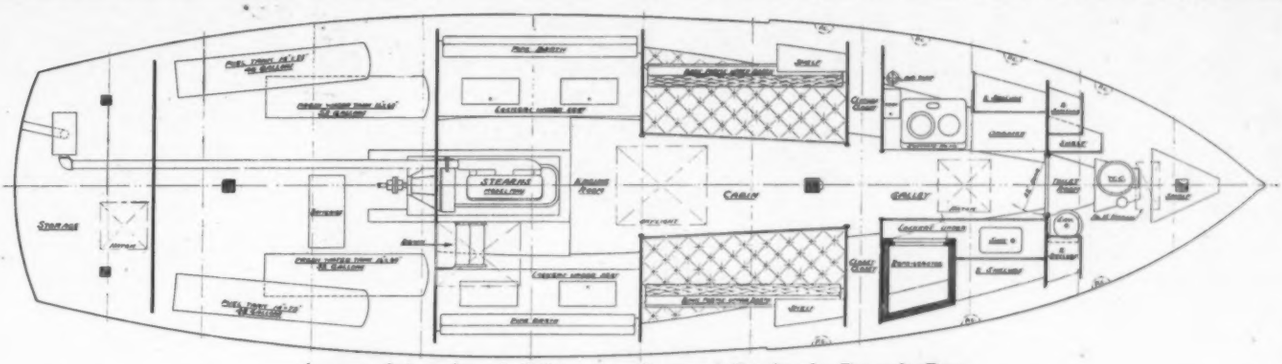
It is well to have an Azimuth circle or shadow pin in order to check your compass by Azimuth sights on the voyage. A compass is always liable to error if any steel comes near it, and a frequent check is advisable. An Azimuth circle costs more but is more reliable on a small boat than is a shadow pin. Also a set of Azimuth tables or an Azimuth chart should be carried. These give the bearing of the sun at any specified time and are necessary in using any line of position method of navigating.

In order to tell the speed of the vessel you need a good log. Any of the patented taffrail logs will be good enough provided they are accurate and large enough for the speed of the vessel. Do not be content with a small log used in motor boats, which are inaccurate above a certain speed. Be careful also that the spinner or rotator does not hit the rail when streaming it, or taking it in, as this will change the accuracy of the instrument. You should test out your log before the start of the race to see if it is in error and what that error is. Checking it on runs between known points, making allowances for tide, will give you a pretty good check on the log's accuracy.

Then you want a sextant. These can be bought for from $50 to $80 and usually have a card or certificate with them stating their accuracy, and if there is any slight error in them it must be allowed for when getting an altitude. If out of adjustment they can be adjusted easily by any navigator who is on to his job. A good sextant is always an asset, but they can be had now for a reasonable figure and a good Mates' sextant will fill the bill all right.

Some method of keeping record of Greenwich mean time must be had and for this purpose a chronometer is necessary. It is not necessary to buy one if you do not own one, as most of the instrument dealers will rent one for the trip at a moderate figure. Most of the boats that went down last year rented chronometers which had been rated and they proved most satisfactory. In connection with the chronometer a hack watch or stop watch will be convenient, as you read the watch when the sight is made and subtract the interval from the time of contact until the chronometer is read from the chronometer time to get the time of sight. These are not necessary provided you have someone stationed at the chronometer to take the time when the navigator calls out.

An efficient lead and line is also necessary, properly marked. This should be a deep sea lead and while it will not be of much use approaching Bermuda, as the water is too deep for anything but a sounding machine until close to the Islands, it will be of great help when on the coast.

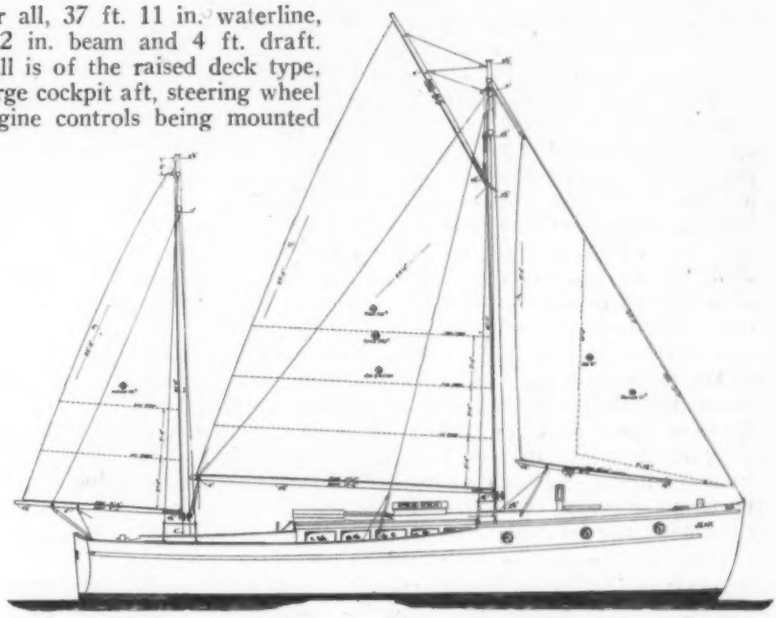


Accommodation plan of 40-foot over all motor sailer for the Bermuda Race.

A "50-50" Auxiliary Entered for the Bermuda Power Boat Class

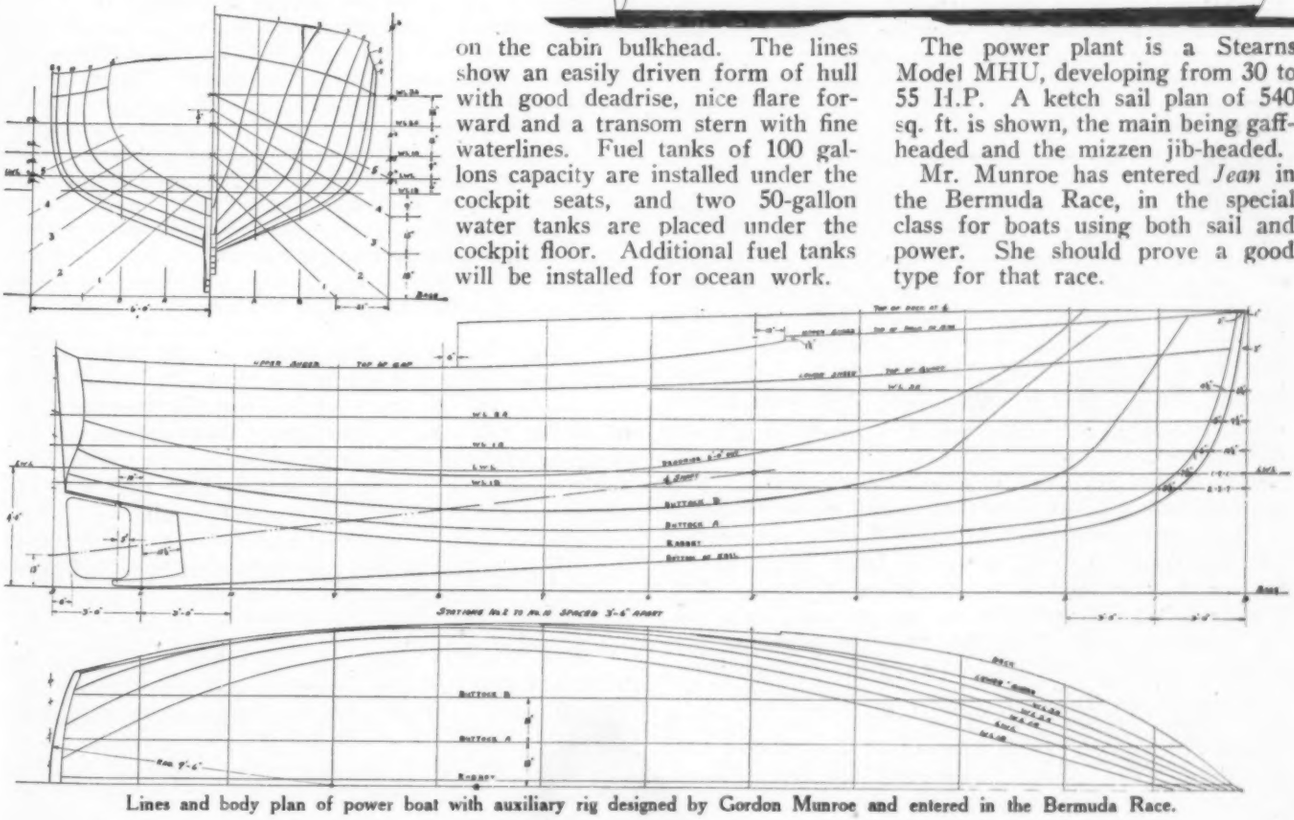
DURING the last year or two a new type of auxiliary has been developed—a boat whose sails are auxiliary to the motor, rather than a sailing craft with an auxiliary motor installation. One of the latest additions to this fast growing class is *Jean*, a 40-footer designed by Gordon Munroe for Walter E. Hurley, of Boston, and building at Boston. Mr. Munroe reports there has been so much interest in her that the model, plans of which are shown herewith, will be brought out as a standard stock proposition.

The owner's requirements were for a boat which would be husky, able, easy to handle, and economical and simple to keep up on short or long cruises along the Maine coast or down the Sound. So *Jean* was designed on a 50-50 basis, 39 ft. 11 in. over all, 37 ft. 11 in. waterline, 11 ft. 2 in. beam and 4 ft. draft. The hull is of the raised deck type, with large cockpit aft, steering wheel and engine controls being mounted on the cabin bulkhead. The lines show an easily driven form of hull with good deadrise, nice flare forward and a transom stern with fine waterlines. Fuel tanks of 100 gallons capacity are installed under the cockpit seats, and two 50-gallon water tanks are placed under the cockpit floor. Additional fuel tanks will be installed for ocean work.



The power plant is a Stearns Model MHU, developing from 30 to 55 H.P. A ketch sail plan of 540 sq. ft. is shown, the main being gaff-headed and the mizzen jib-headed.

Mr. Munroe has entered *Jean* in the Bermuda Race, in the special class for boats using both sail and power. She should prove a good type for that race.



Lines and body plan of power boat with auxiliary rig designed by Gordon Munroe and entered in the Bermuda Race.

Yachting

Herbert L. Stone, Editor

Samuel Wetherill, Associate Editor

Editorial

New York Yacht Club Will Cruise to Maine

WITH the announcement recently by the New York Yacht Club of plans for the Annual Cruise, it was found that these included taking the fleet to Maine as far east as Bar Harbor. It would seem as if this should prove a welcome change to those members who have been making the port-to-port runs of the club every year, which for a long time have covered only the waters between Glen Cove and the Vineyard with an occasional jump around the Cape or through the canal to Marblehead. Yet the memories of the last cruise to Maine in 1909 are not altogether pleasant ones for many of those who made it, and there may be some who will bring up this old bugbear of the dusting the fleet got off Cape Cod that memorable year.

The tentative plans call for the rendezvous at Newport some time the first week of August, where the Astor Cups will be sailed for, thence proceeding to Buzzards Bay, through the Cape Cod Canal and then making a long jump to Rockland, Maine, some 145 miles, and winding up with the run to Bar Harbor, at which place the King's Cup Race will be held.

With the increasing interest in long distance racing it seems as if Commodore Harold S. Vanderbilt has decided wisely in extending the cruise, taking the yachts to new waters and giving a long ocean leg. It should make a strong appeal and a big fleet should follow the *Vagrant* "down east."

Why Not More Club Cruises?

Speaking of Club cruises, one wonders what has become of that time honored custom in recent years. There was a time, not so many years ago, when every yacht club of any importance included in its summer schedule a club cruise when all the yachts in the home fleet sailed in company for a week or so, with port to port runs for the racing boats. These seem to have gone gradually into the discard, with nothing really worth while to take their place. We confess to a feeling of regret that this has come to pass. Certainly these club cruises were conducive to much pleasure, to a wider acquaintance among the members and to a friendly rivalry that brought owners and crews generally into closer touch than anything else has done. To visit the other boats of the fleet in the various ports, to join the other crews in doings ashore and to sail hard against them on the runs were good things for the spirit of any club. With their abandonment went one of the chief means of forming lasting friendships inside the club. Why not revive them?

Ocean Racing for Developing Sailors

When a man goes to sea in a small boat, and keeps her there for days at a time, he is in a fair way to absorb more real knowledge of seamanship into his system than he is by any amount of knocking about along shore and poking into some harbor every night to get snugged down before dark. And when you add to this keeping the sea the urge that racing gives to drive the boat night and day, one gets a lesson in sail carrying, resourcefulness and all that goes into the making of a sailor that can be learned in no other way. In long distance racing it is those who carry on the longest and drive the hardest at night, when one cannot see what's coming and the seas tumble aboard out of the blackness without warning, who usually make the fast passages. In the old days of the square-riggers there were certain skippers that always clewed up and furled royals and kites every night as soon as darkness came. These men never made fast passages and never commanded the respect of their crews, and it is only by the incentive that comes with racing that yachtsmen will learn to carry sail and drive as hard at night as they do by day.

When things happen off shore, as they sometimes do, and there is no port to duck into for repairs, one is thrown on the resources of the ship and crew, and it is here that a man's ability and skill are called into play. It is all these things that give ocean racing such an appeal; and the fact that these long distance events have become so popular since the sailing of the Bermuda race last year is proof that the spirit of adventure and the lure of the sea are as strong today as they were when men sailed out on the unknown Western Ocean from the shores of Europe four hundred years ago. The ships may be different now, but the men are the same.

Tax Legislation in Danger

With the failure of Congress to take any action on the pending tax bills now before the House and Senate, the chances of relief from the unjust and discriminating tax of 10 per cent. on the building of boats to be used for pleasure are still in jeopardy. The tax was eliminated from the bill recently passed by the House, but with the failure of the Senate to act, due to the wave of investigations which has swept that august body, it looks as if no relief will be afforded unless they get busy and agree upon a tax bill that can pass both houses. Work on your Senator, pressing for some action on pending tax legislation. And do it now! If you wait, and Congress adjourns without action, it means that the present tax stands.

In the World of Yachting

C. Sherman Hoyt, Captain American Six-Meter Team.

C. SHERMAN HOYT

PROBABLY no name has stood out as prominently in the world of yachting during the past few years as that of C. Sherman Hoyt. Starting as a mere youngster in small sailing skiffs and cats, he has climbed steadily every rung of the ladder of yachting experience until today he is considered one of the finest helmsmen and one of the foremost racing authorities in this country. In 1920 he was chosen as official American observer on board Sir Thomas Lipton's *Shamrock IV* in her memorable races against *Resolute,* and in 1921, 1922 and 1923 was captain of the American Six-Meter teams which met the British yachtsmen both at home and abroad.

Mr. Hoyt started his racing career back in 1893, when at the age of 13 years he was sailing in the old Seawanhaka Corinthian Cats. He first came into prominence as a sailor and skipper three years later when he owned the half rater *Paprika,* designed by Larry Huntington, which, in 1896, won 22 firsts out of 30 starts. Still sticking to small boats he sailed in the following three years in the one raters *Shark, Challenger* and *Constance* for the Seawanhaka Cup. He has been active in all the Seawanhaka Yacht Club one-design classes, owning two of the famous 21-footers of that club, the *Stella* and the *Wyntje,* and the 15-footer *Cayenne.*

Being interested in yacht designing he took up the study of naval architecture and in 1903-4 took a course in that subject at the University of Glasgow. On his return to this country he began designing yachts and in 1907 he turned out for himself the Class Q *Capsicum,* the only cruising "Q" boat built up to that date. He sailed her down to Jamestown, Virginia, that year and raced her at the Jamestown Exposition, where she won the King's Cup. In spite of her cruising accommodations *Capsicum* was always a good light weather performer.

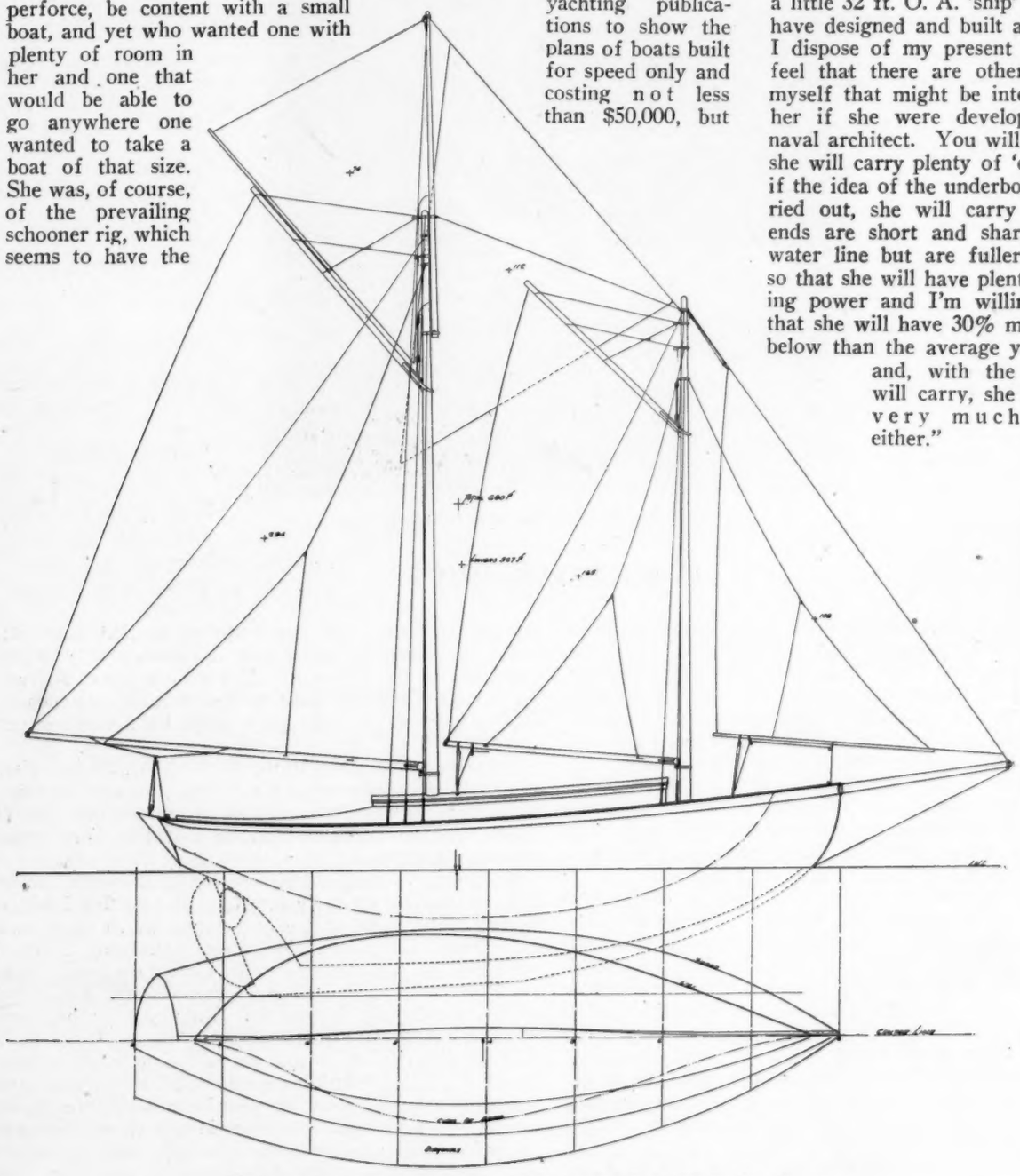
After several seasons in the N. Y. Y. C. 30-foot class, in which he usually sailed the *Phryne,* he went to somewhat larger boats and raced in several of the Class P yachts, in the Class N *Norota* and the Cary Smith schooner *Iroquois.*

In racing, as most yachtsmen know, it is one's ability to keep his boat properly tuned up and get her hung, or balanced just right, that counts for as much as, or even more than, actual skill in sailing. Probably as many races are won before the start by having the boat "right," as after the start. It is in these respects that Mr. Hoyt's ability stands out beyond the average, for he seems to have an uncanny knack of being able to "tune up" a boat to concert pitch so that she will show every atom of speed of which her hull is capable. Mr. Hoyt has already started a winning streak this year by amassing the highest number of points for his team in the recent six-meter races held in Cuban waters. We hope that his success will continue throughout the season in the new "Six" which he will handle for the Seawanhaka Corinthian Club, and that he may be an important factor in bringing back the International Six-Meter Trophy to our shores.

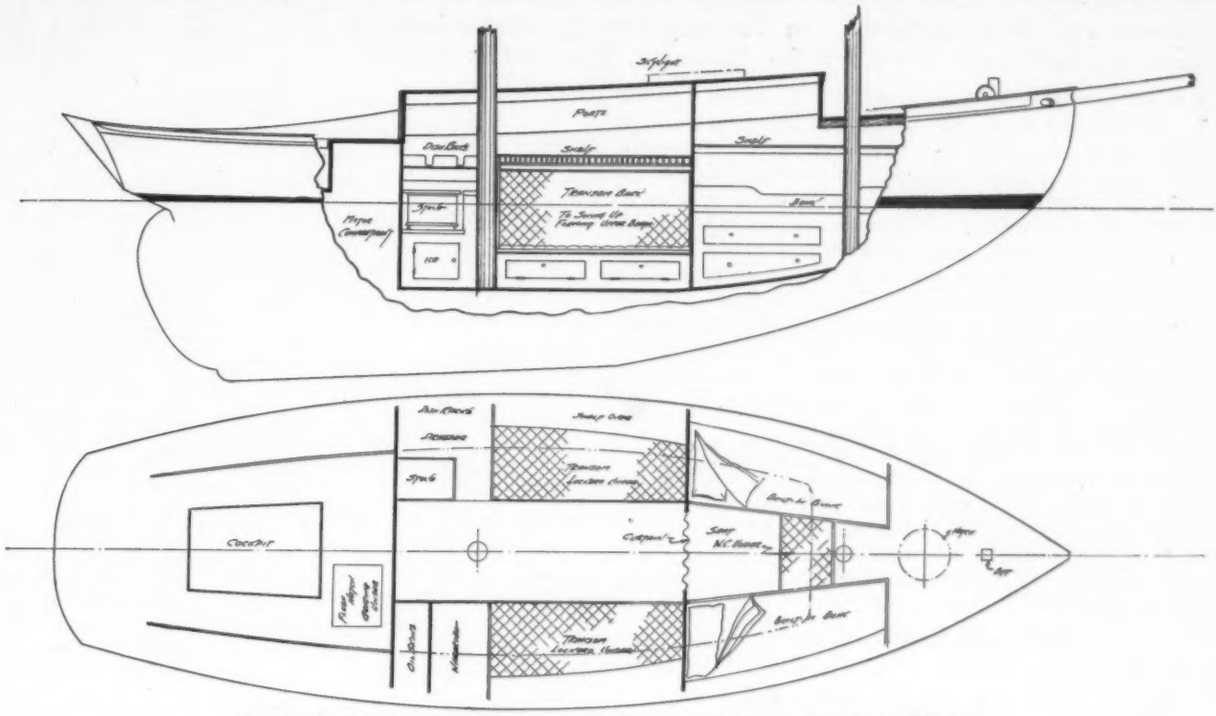
A 32-Foot Cruising Schooner for the Man Who Must Have a Small Boat

SOME time ago YACHTING received a letter from a West Coast yachtsman, Mr. Karl K. Rathford, of Tacoma, commenting on the controversy between advocates of the yacht and the large displacement type for cruising purposes, and enclosing a pencil sketch of a little boat 32 feet over all, suitable for the man who must, perforce, be content with a small boat, and yet who wanted one with plenty of room in her and one that would be able to go anywhere one wanted to take a boat of that size. She was, of course, of the prevailing schooner rig, which seems to have the call for cruisers at the present time. The writer said, in part:

"One thing I wish to commend you for in particular is the number of designs of boats ranging from thirty to forty feet in length that are within the reach of the average man, and are therefore interesting to the average reader. It seems to be the rule with some of the other yachting publications to show the plans of boats built for speed only and costing not less than $50,000, but the fact is overlooked that the back-bone of the sport is made up of the 'thirty and forty foot boys' and it is to the 'little fellow' that the magazines should appeal, as they are the ones who keep sport on its feet. In this particular I feel that YACHTING is far in the lead of the rest of the field. I am enclosing a rough pencil sketch of a little 32 ft. O. A. 'ship' I hope to have designed and built as soon as I dispose of my present boat as I feel that there are others besides myself that might be interested in her if she were developed by a naval architect. You will note that she will carry plenty of 'cloth', but if the idea of the underbody is carried out, she will carry it. Her ends are short and sharp on the water line but are fuller on deck so that she will have plenty of lifting power and I'm willing to bet that she will have 30% more room below than the average yacht type and, with the sail she will carry, she won't be very much slower, either."



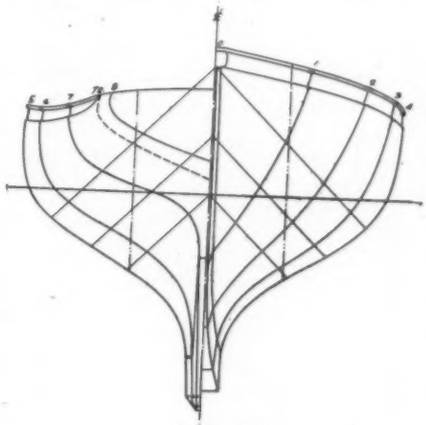
Plans of a small 32-foot schooner yacht drawn by P. L. Rhodes for YACHTING.



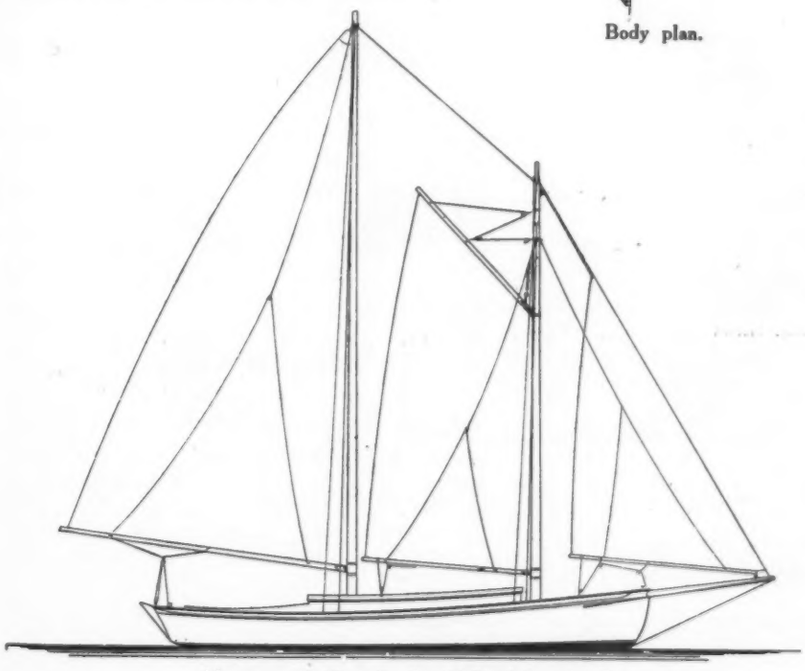
. Sketch of cabin plan of small schooner, 32 feet over all, designed by P. L. Rhodes.

As the design had so much merit in it, YACHTING asked P. L. Rhodes, a naval architect of New York, to develop the idea and work up the plans. The result is shown in the accompanying set of lines, body plan and sail plan.

They show an exceptionally wholesome and able little boat and one which should be easy to drive. The bilges have an easy turn and she should sail at a moderate angle of heel and yet not be so stiff as to make her slow in any but strong breezes. The entrance is not too full and the after sections are such as to carry the fore and aft lines out in a fair curve in spite of the short after overhang. Her ends, of course, are short to give all the room on the over all length possible. The sheer is pleasing and not at all excessive. The lateral plane is quite long, with good drag and plenty of forefoot, making for steady steering in a seaway, a feature sure to appeal to all seasoned cruising men. Her dimensions are:—L. o. a. 32 ft.; w. l. 28 ft.; beam extreme 10 ft.; beam w. l. 9 ft. 7 in.; draft 5 ft. 8 in.; total sail area 680 sq. ft.; sail area lowers, 567 sq. ft.; displacement 21,000 lbs.



Body plan.



Alternate sail plan, showing jib-headed mainsail.

The gaff rig shown is Mr. Rathford's idea. He believes most cruisers are under-rigged for moderate weather, so a topmast is shown, and a large club topsail carried over the snug area of the three lowers. Many people may object to the topsail, but on a small craft it is not hard to handle, and as a matter of fact sail shortening at sea should begin at the top rather than from the bottom. For those who prefer it, a jib-headed rig is also shown, and it would be simple enough to use a gaff-headed main, with higher hoist, doing away with the topsail. Both sail plans show a single jib, which is usually preferred for average cruising.

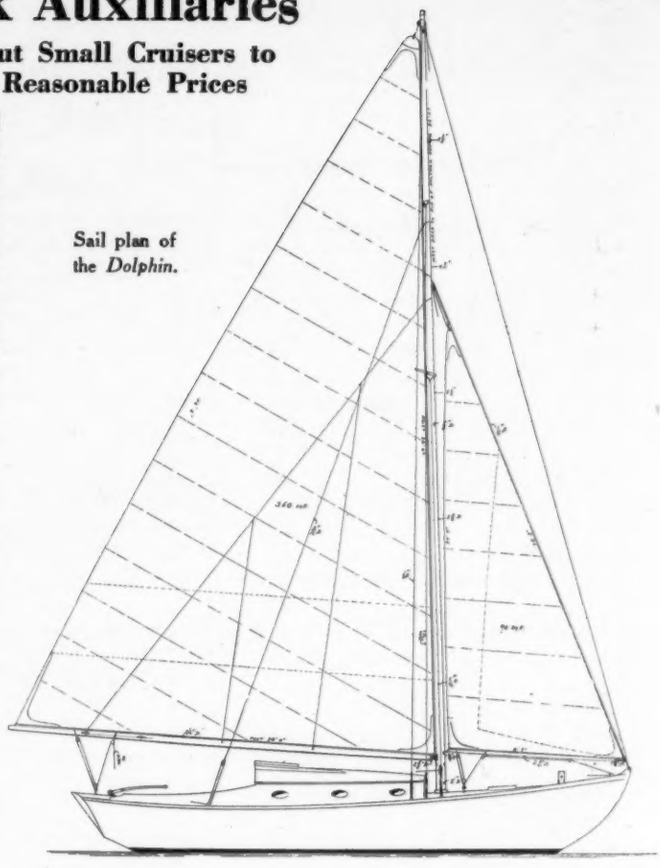
A sketch of a cabin plan is shown, although there are many variations of this that can be used. From 5 ft. 6 in. to 5 ft. 10 in. head room can be worked in without spoiling the looks.

And Now Come the Stock Auxiliaries

Designers and Boat Builders Are Turning Out Small Cruisers to Meet an Increasing Demand for Boats at Reasonable Prices

MANY a man, yearning to sail the briny in a small auxiliary cruiser, has gone boatless for several seasons for two reasons—one, because there are hardly any desirable craft to be found in the second hand market, and the other, because the cost of building a new boat has been prohibitive to one with a limited pocket book. Several seasons ago, with the same conditions facing them, the lovers of power driven craft had their problem solved for them by a number of builders turning out stock boats, quantity production bringing down the cost to within their reach. And now the sailor-cruiser may have his problem solved the same way, for already three attractive stock auxiliaries are under way, with more to follow in due time.

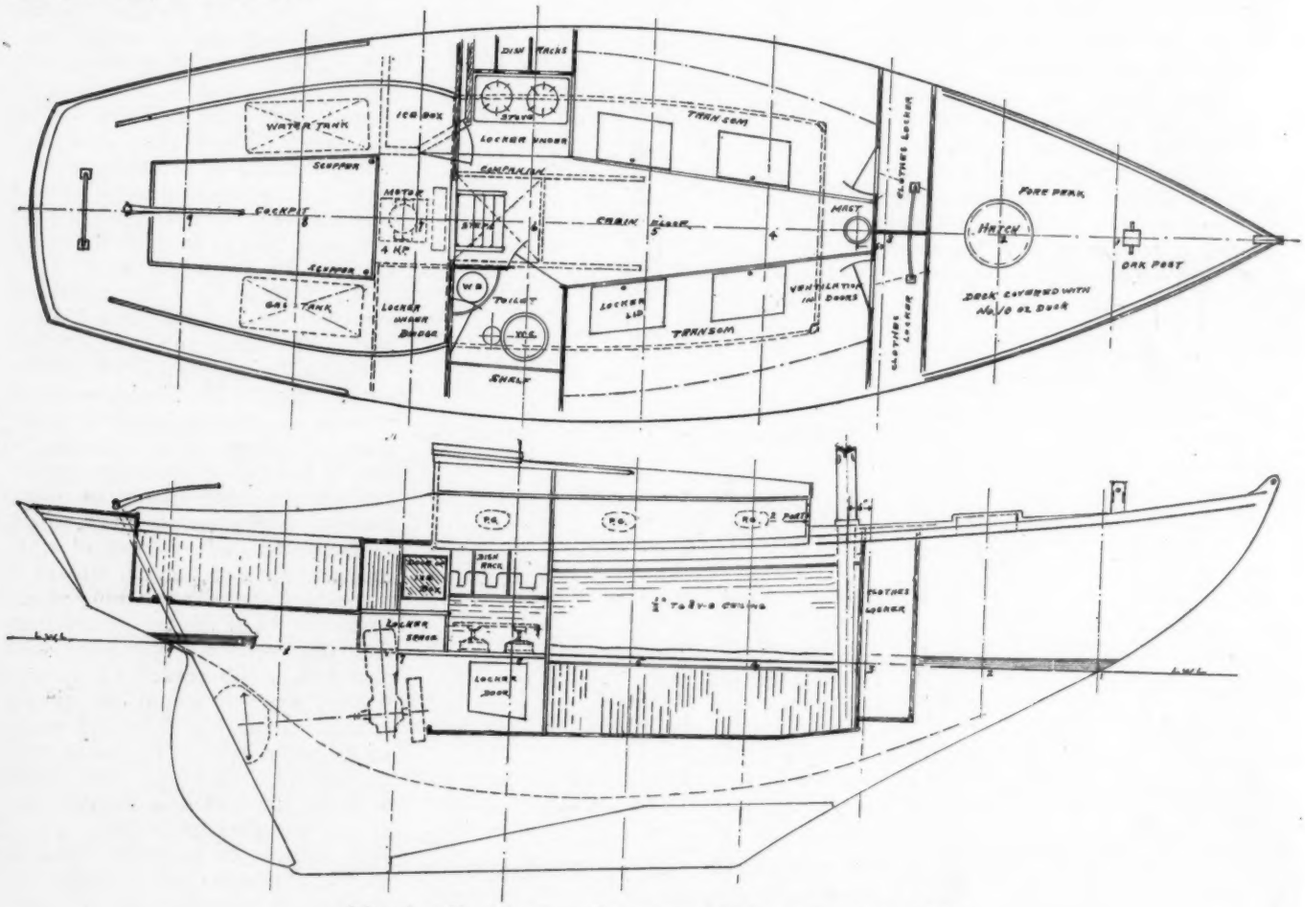
These newcomers will range in size from 25 feet over all to 30 feet over all, with accommodations for two to four people. All will be rigged as sloops, there being no need for two sticks in craft of this size. YACHTING takes pleasure in presenting to its readers the plans of these boats, a number of which will surely be seen in various localities during the coming season.



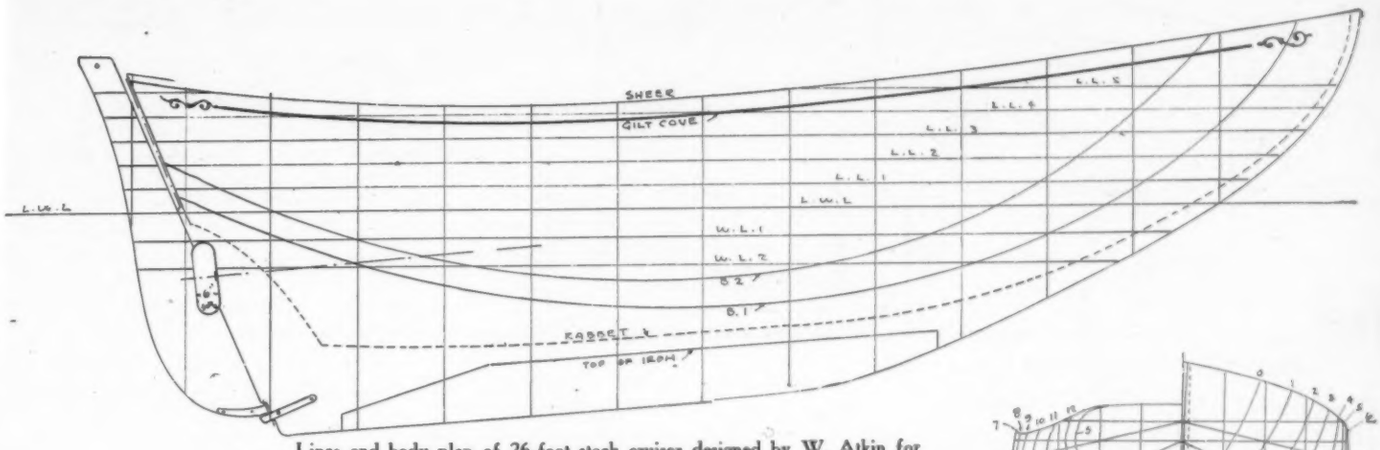
Sail plan of the *Dolphin*.

Dolphin, a 26-Footer

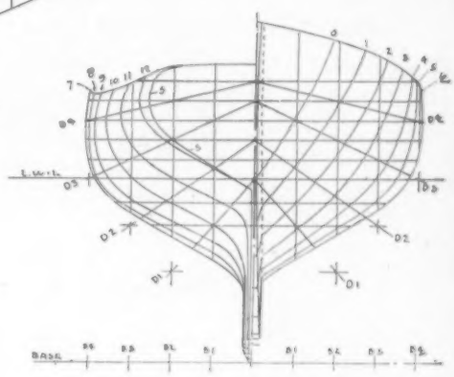
The first plans to be shown are of a small auxiliary cruising sloop from Roger M. Haddock's design which is being built for Mr. G. M. Buckley at Haff's Yard, New Rochelle. Several more boats, with some minor changes in the plans, and 6 inches longer have been ordered as stock boats, and will be built at the yard of the well-known builder, H. B. Nevins, City Island, N. Y., a high-class job being thus assured.



Inboard profile and accommodation plan of 26-foot stock cruiser *Dolphin*.



Lines and body plan of 26-foot stock cruiser designed by W. Atkin for Rigg's Yacht Agency.



Mr. Buckley wanted a small cruiser with accommodations for two people, rather than the congested berth arrangement sometimes found in boats of this size recently designed, where the happy, or unhappy, voyagers mingle like a bunch of earthworms in a bait can. So *Dolphin*, 26 ft. over all, 20 ft. waterline, 8 ft. 6 in. beam and 4 ft. 11 in. draft, accommodates two people comfortably with an enclosed toilet room, good galley, ice box, plenty of lockers and a fine forepeak for stowage of gear. A motor of about 5 H.P., tucked away under the companion steps, will give about a 5-mile speed in smooth water.

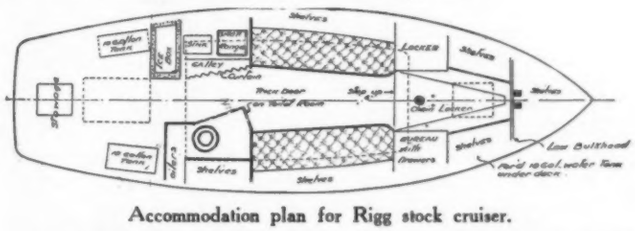
Dolphin, with her generous draft, will be a fine windward performer, and has an easy form for rough going, not having such great initial stability as to be hard on her rigging. The jib-headed rig was adopted on account of ease of handling and its superiority in windward work. The sail area is about 450 square feet.

The hull will be planked with cedar over an oak frame, with mahogany house and trim. Decks will be canvas covered. Most of the ballast will be carried outside in the form of an iron keel, with enough inside for trimming purposes.

Altogether, *Dolphin* should make a strong appeal to anyone wanting a small, inexpensive auxiliary which will be a comfortable, safe and easily handled boat for Sound or coastwise trips.

A 26-Foot Over All Stock Jib-Headed Cruiser

The next of the small stock auxiliaries is the little 26-footer designed by Wiliam Atkin for Rigg's Yacht Agency. One of these is being completed at S. S. Breese's Yard, Port Jefferson, and duplicates will be started shortly in a Nova Scotia shipyard.



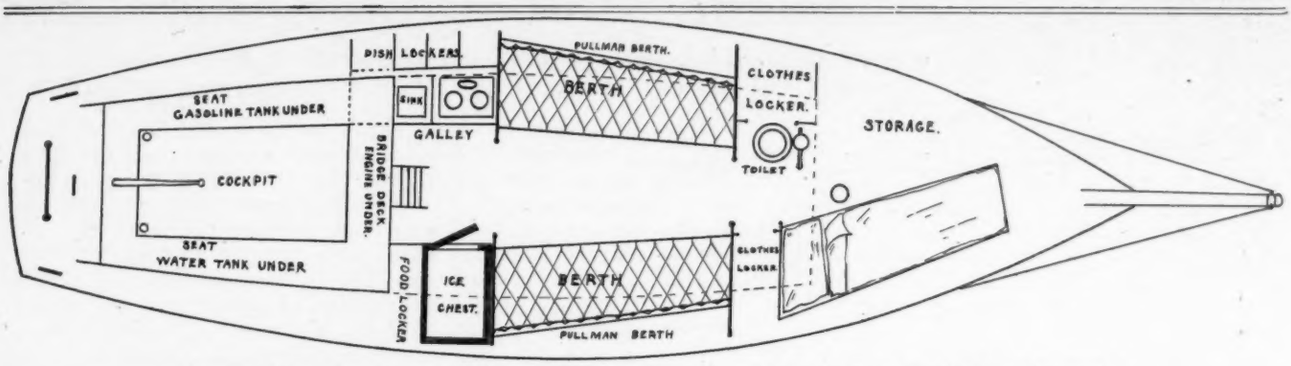
Accommodation plan for Rigg stock cruiser.

The Crabs, as these little cruisers are called, are jib-headed sloops, 26′ 3″ O.A., 22′ W.L., 8′ 6″ beam, and 4′ 9″ draft, powered with a 2-cylinder 4-cycle motor. They have a lively sheer, short overhangs and a rudder hung outdoors. The bilge is firm without being hard,

Sail plan of 26-foot jib headed cruiser.

the deadrise and freeboard good, so that they should be fine sea boats and easily driven under either sail or power.

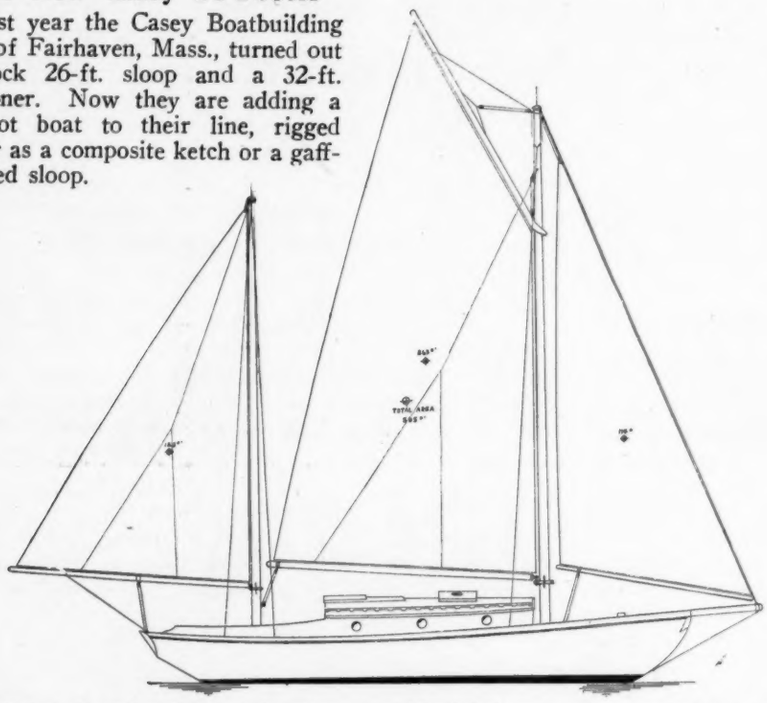
The cabin plan shown is but one of several from which the individual may pick the one which appeals to him most. They can be laid out to sleep up to four persons comfortably. The equipment is most complete, and early deliveries are promised.



Accommodation plan for new 30-foot stock cruiser designed and built by Casey Boatbuilding Company.

The New Casey 30-Footer

Last year the Casey Boatbuilding Co., of Fairhaven, Mass., turned out a stock 26-ft. sloop and a 32-ft. schooner. Now they are adding a 30-foot boat to their line, rigged either as a composite ketch or a gaff-headed sloop.

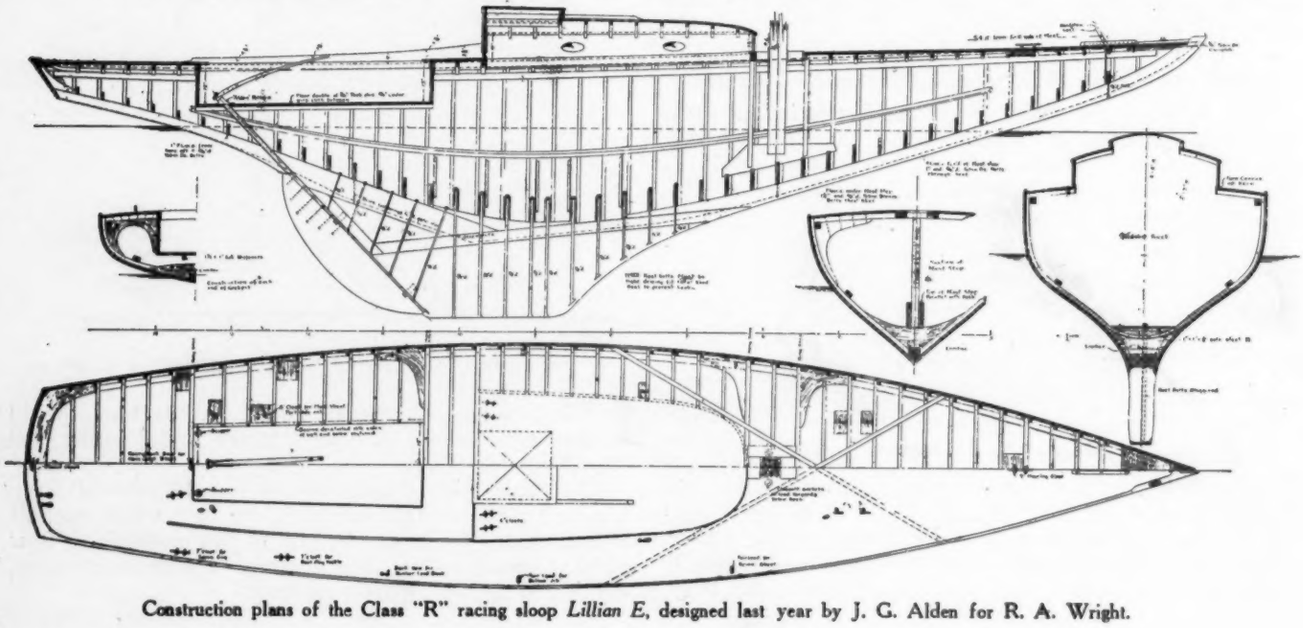


Ketch rig for Casey 30-foot stock cruiser. A gaff headed sloop rig will be supplied if desired.

The new craft is 30 ft. over all, 23 ft. waterline, 8 ft. 8 in. beam and 4 ft. 6 in. draft. She is similar in design to the 26-footer, with finer lines, a little less freeboard, and other little refinements of model which experience has proved advantageous. The iron keel weighs 2,500 lbs., with some inside ballast for trimming.

Below decks we find the galley with sink, dresser and dish lockers abreast of the companion steps, and a fine ice box and food lockers just opposite. Then comes the main cabin, with two transoms and two Pullman type berths. There is a built-in berth in the forepeak, which is separated from the main cabin by a clothes locker on the starboard side, and by a combination toilet room and clothes locker on the port side.

There is ample room under the bridge deck for any reasonable motor installation. Water and gasoline tanks are located under the cockpit seats. One of the new boats is a possible entry in the Bermuda Race.



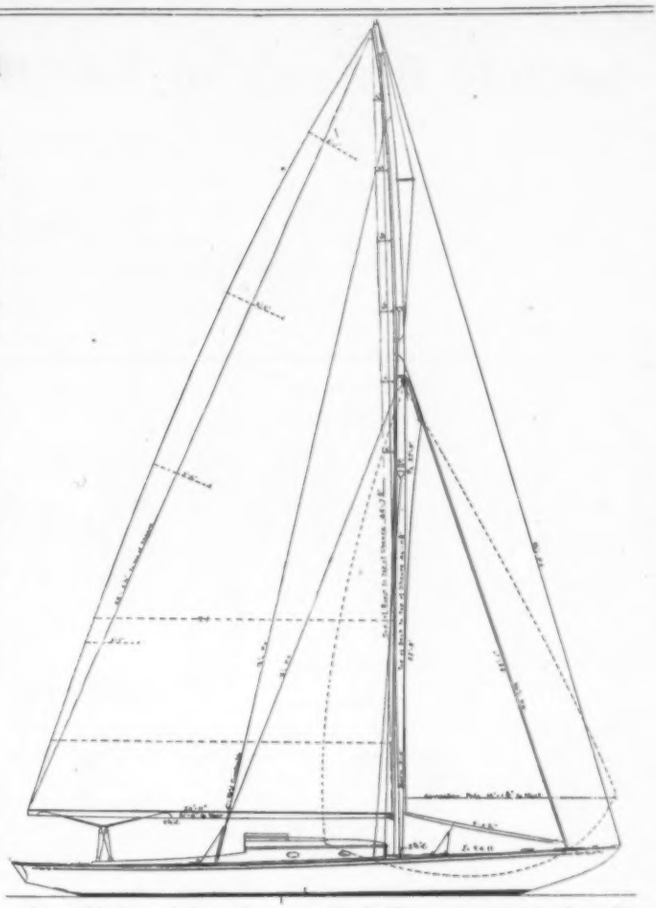
Construction plans of the Class "R" racing sloop *Lillian E*, designed last year by J. G. Alden for R. A. Wright.

Lillian E., Champion Canadian R Class Boat

THE accompanying plans are of the successful Class "R" boat *Lillian E.*, owned by R. A. Wright, of Toronto, Canada. Built last year from John G. Alden's designs by James Andrews, of Oakville, Ontario, *Lillian E.* promptly showed a clean pair of heels to every boat she tackled, winning not only the championship of the Royal Canadian Yacht Club, but the Lake Yacht Racing Association championship as well. To quote from a letter from her enthusiastic owner:

"In the series for the Championship of the Royal Canadian Yacht Club I won 4 firsts, 1 second and 1 third, losing the last race on account of a broken spreader. Then, besides the Lake Yacht Racing Association championship, I also beat the entire fleet on time allowance for the Great War Veterans Association cup. I was keenly disappointed at not being chosen as the Royal Canadian Yacht Club representative in the George Cup races, after having won 9 out of 14 trial races, a far better showing than was made by any other boat."

The dimensions of *Lillian E.* are as follows: L.O.A., 34' 6"; L.W.L., 24' 6"; beam, 7' 5"; draft, 5' 7". Her sail area is 600 square feet.

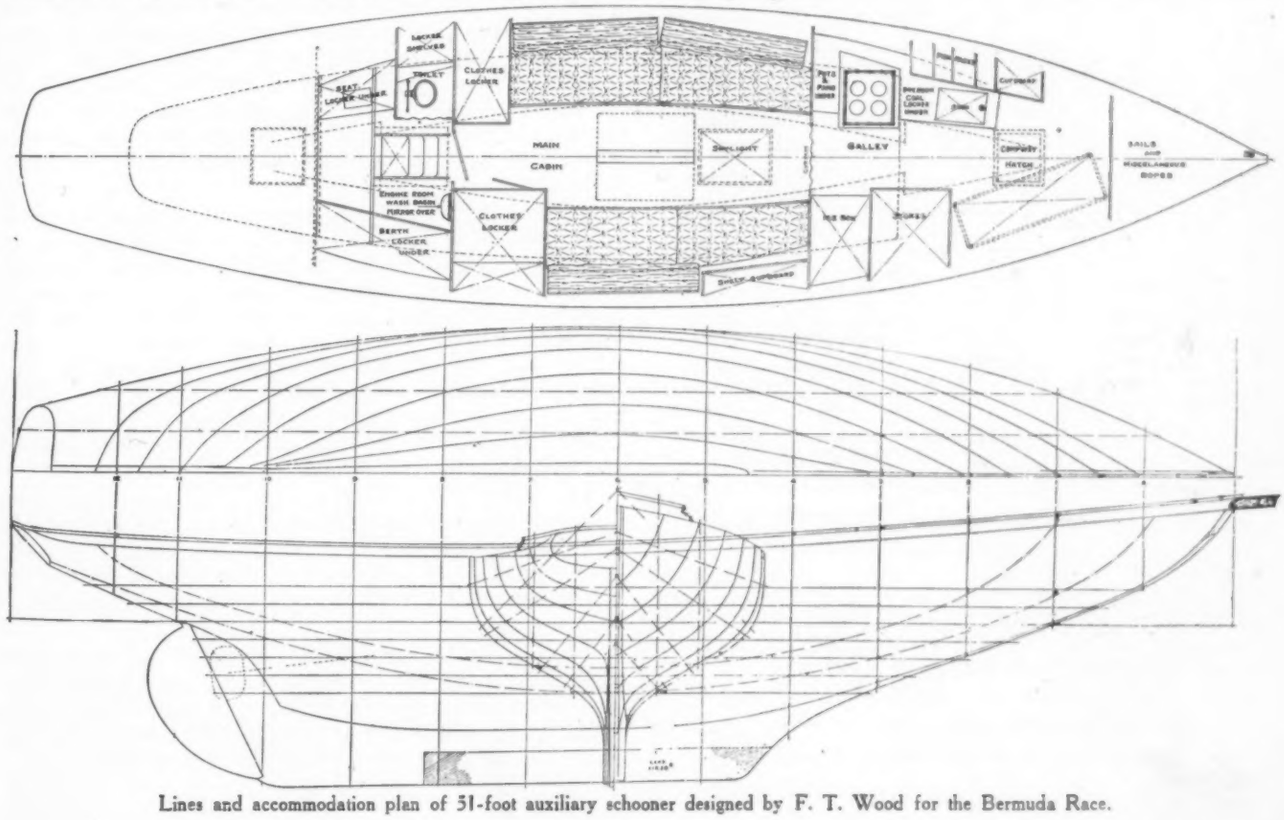


Class "R" sloop *Lillian E.*, winner Yacht Racing Association championship on Lake Ontario.

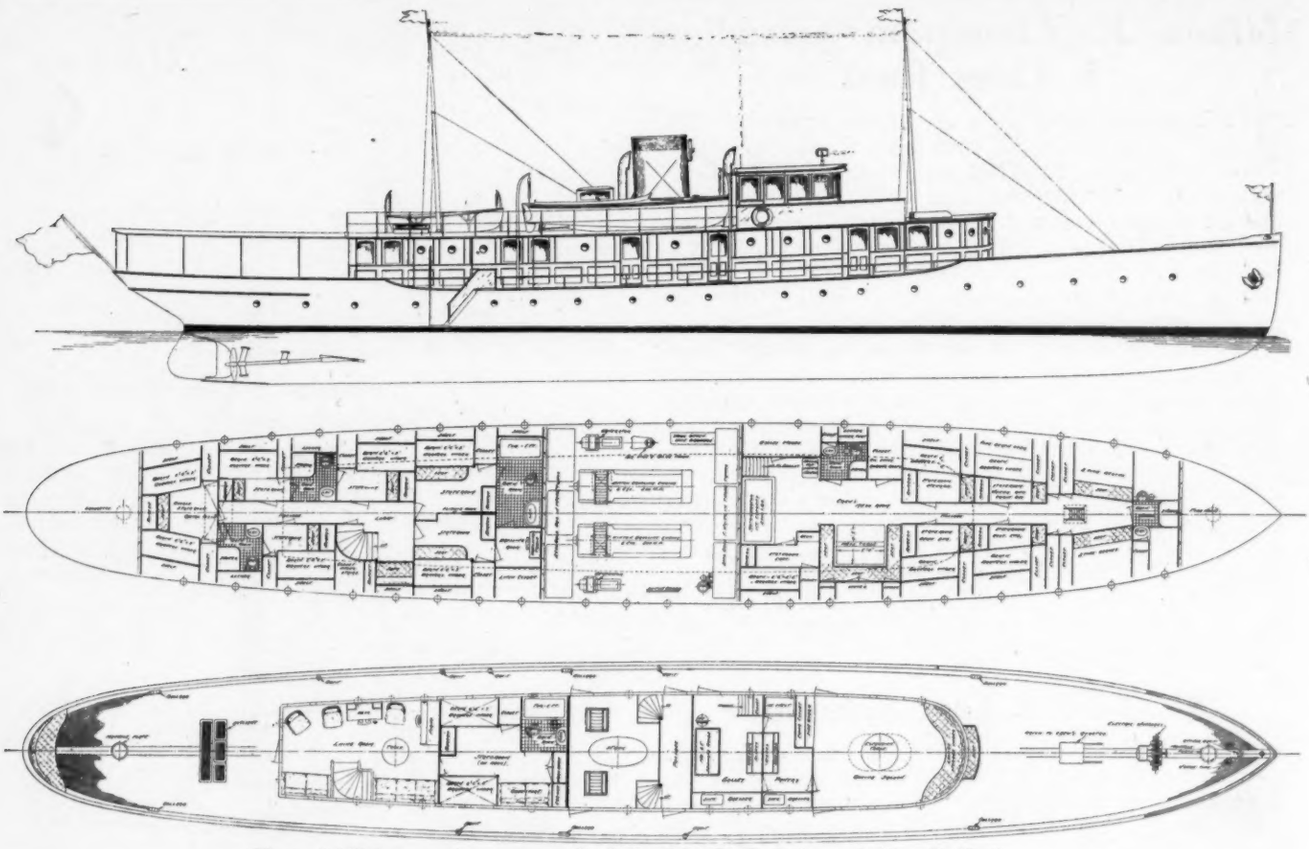
A 51-Foot Fast Schooner

THE Bermuda Race has had considerable influence in the designing of cruising yachts during the past year, especially in regards to incorporating the elements of speed as well as seaworthiness and comfort in boats designed for going off shore.

One of the latest designs for this race to come to our attention is from the board of F. T. Wood, a yacht designer and ship draftsman of some thirty years experience, who has made quite a name for himself as a designer of model yachts. The design in question, which includes lines, sail plan and accommodation plan, is of a little schooner turned out with a view of fitting Class B in the Bermuda Race with the thought that someone anxious to get into the event this year would build her this Spring.

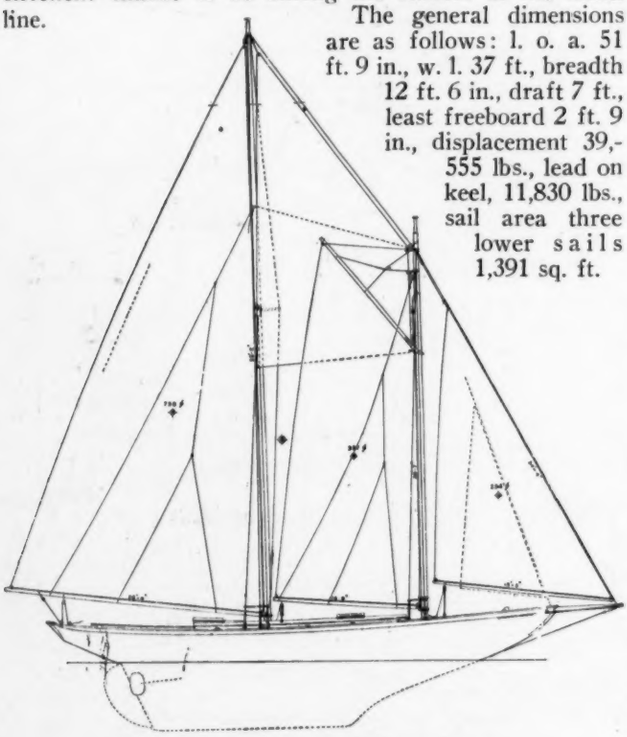


Lines and accommodation plan of 51-foot auxiliary schooner designed by F. T. Wood for the Bermuda Race.



Plans of 140-foot seagoing power yacht designed by B. T. Dobson of New Bedford.

The lines show a good profile with an easy sweep of sheeer, a good looking body plan, showing a form that should be easily driven and yet one that will be seaworthy and comfortable for her crew. Her designer believes that with good handling she would have an excellent chance to be among the leaders at the finish line. The general dimensions are as follows: l. o. a. 51 ft. 9 in., w. l. 37 ft., breadth 12 ft. 6 in., draft 7 ft., least freeboard 2 ft. 9 in., displacement 39,555 lbs., lead on keel, 11,830 lbs., sail area three lower sails 1,391 sq. ft.



Sail plan of 51-foot fast auxiliary schooner.

A Splendid Seagoing Power Cruiser

ONE of the handsomest seagoing power cruisers we have seen in some time is shown in the accompanying plans from the board of B. T. Dobson, of New Bedford, Mass. This craft is 140 ft. O.A., 131 ft. W.L., 20 ft. beam, and 7 ft. draft, and she is to be powered with two 200 H.P. Winton gasoline motors, which are expected to drive her around fourteen miles an hour.

Mr. Dobson has not only turned out an unsually handsome boat in all respects, but one in which there is an unusual amount of room. A double stateroom, five single staterooms and three bath rooms are found in the after part of the boat, while forward there is a large and commodious crew's quarters, consisting of five staterooms, two bath rooms, mess room and forecastle. The engine compartment is located amidships, where is found not only the main and auxiliary machinery, but hot water heating system, refrigerating plant, 2,500 gallon gasoline tanks, 2,000 gallon water tanks, etc.

The galley and pantry are on deck, connecting with a deck dining saloon forward. Abaft the bridge is a fine double stateroom. A comfortable living room well aft completes an arrangement that should afford the maximum of comfort for the owner and a large number of guests.

The profile of the boat is unusually graceful. The ends are carried up, giving plenty of freeboard forward and aft, and the houses, including a pilot house on the bridge, only add to the graceful proportions of the vessel. The design is for a Philadelphia yachtsman.

How to Build a Sailing Model by the Lift Method

By THOMAS DARLING

BY far the greater number of sailing model yachts are built by the "lift" method made from three or four sections or layers of wood, glued together and then shaped up and hollowed out. Many think this way of building is easier than by the planked method. The plans necessary for the successful building of the boat shown here are the Hull Plan, the Body Plan, the Spar and Sail Plan and the Fittings Plan.

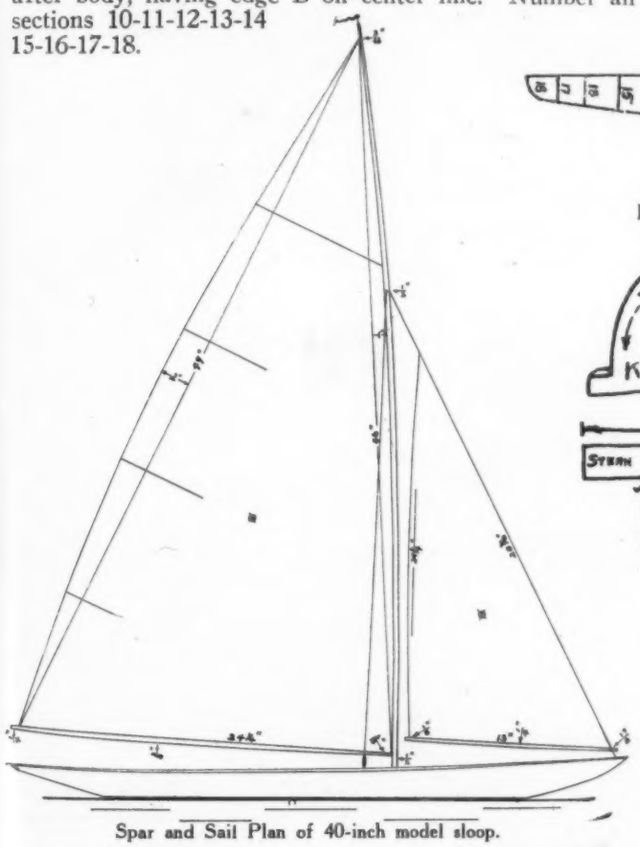
Before beginning to build study the hull plan carefully, note where the sheer line, load water line, the keel line and the top of lead line are to be found on the sheer plan. These lines are very important. Be sure you understand the layout of the body plan, the location of each station or section before proceeding, as these shapes determine the contour of the boat when properly located on the keel line. Locate the sheer line, load water line and keel line in this view of the boat.

Look at the half-breadth plan and note where the sheer line, l.w.l., and shape of bottom of ballast are to be found.

Compare the three plans or views of the hull, noting the relation of lines and how they are developed. Refer to these three views constantly when picking up shapes for templates. Consider the keel line as running from the stem head to the transom.

Apply transparent paper to body plan, laying edge of paper A on center line, as in Fig. 3.

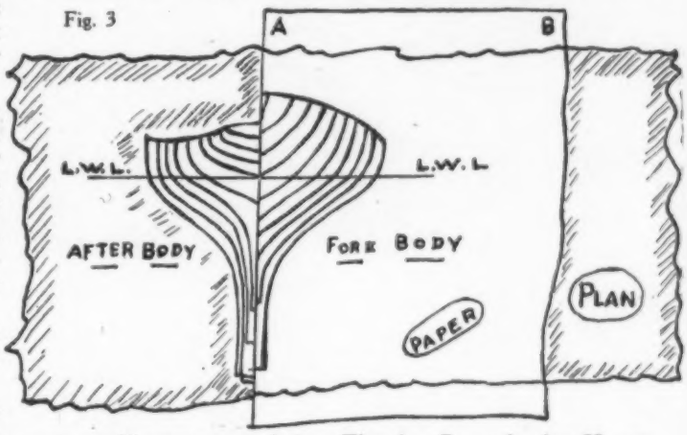
Trace shape of sections 1-2-3-4-5-6-7-8-9 in forebody. Be sure to mark sheer line, water line and keel line on each. Number each section. Repeat the operation for after body, having edge B on center line. Number all sections 10-11-12-13-14 15-16-17-18.



Spar and Sail Plan of 40-inch model sloop.

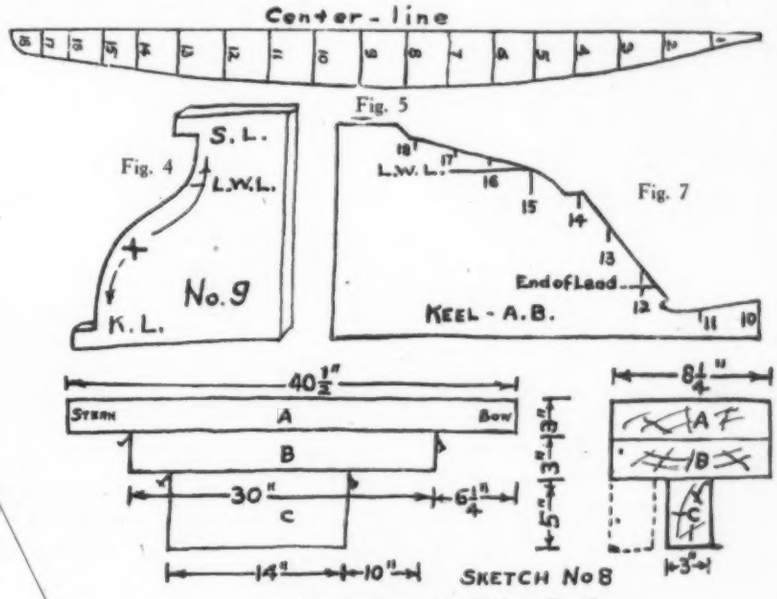
When body section lines have been outlined apply paper to heavy cardboard, and trace. Then cut with knife on lines thus transferred. Leave a hook at each extremity of template at sheer line and keel line. Templates will appear as shown Fig. 4. Curved edge X can be faired with sand paper.

Fig. 3



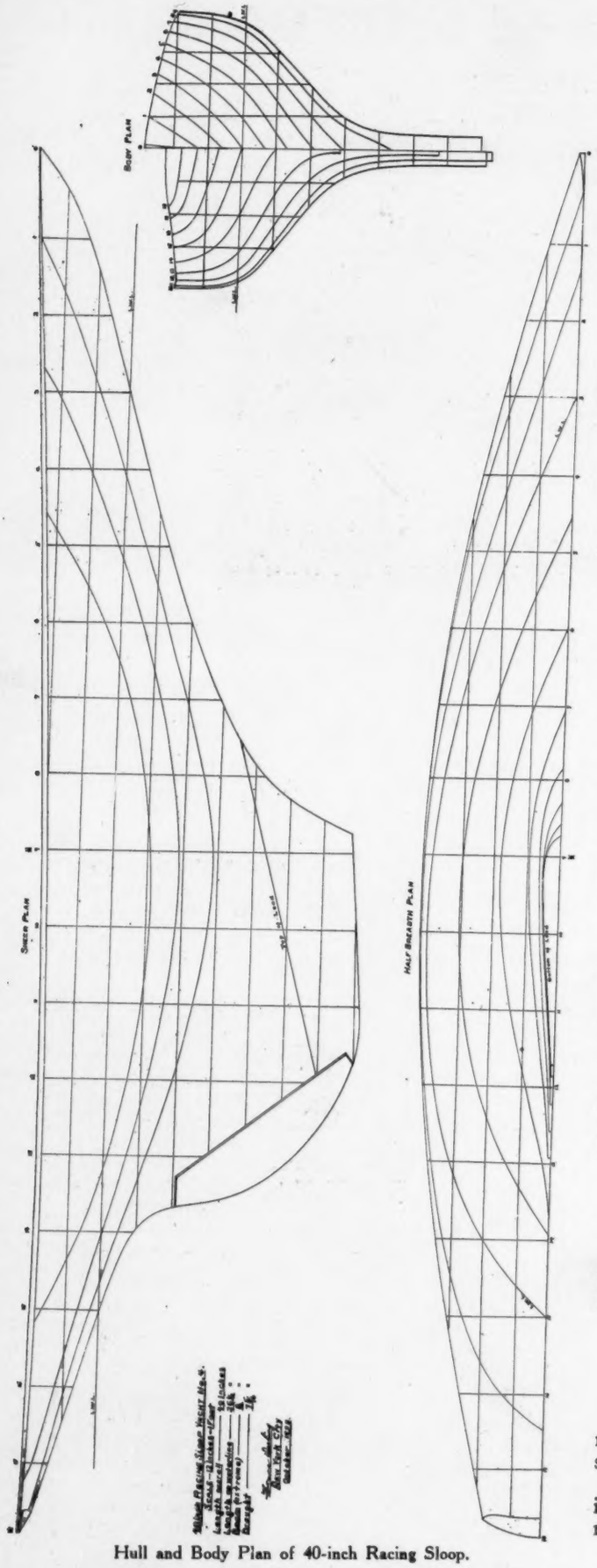
Trace from plan and make template for half breadth by same method. Mark stations and rudder port location. Square station lines across template. Refer to Fig. 5.

Trace and make template of keel in fore-body and mark stations, as in Fig. 6. Repeat operation for keel in after-body; locate and number stations 10-11-12-13-14-15-16-17-18 and after end of lead. Fig. 7. Also make template for rudder.



Preparing and Gluing Stock

Use best grade white pine obtainable for your wood. The bread and butter or lift method being the simplest, and as strong as any for a 40" hull, we will use it for this job. One layer 3" thick will make all of hull above l.w.l. Two layers 3" thick will make the underbody and when assembled will appear as shown in Sketch 8.



Hull and Body Plan of 40-inch Racing Sloop.

Layer C will be placed on edge. If unable to procure stock of this thickness, blocks can be built up in 1" lifts. This will enable builder to see all waterlines as drawn on plan. These waterlines are not necessary for our purpose, as the points we are concerned with are the sheer line, load water line and keel line at each station or section.

Dress faces, edges, etc., of each block square and smooth. A jack plane is best tool for this purpose. Lay blocks in positions shown in Sketch 8 and make sure that they fit true preparatory to gluing. Secure tem-

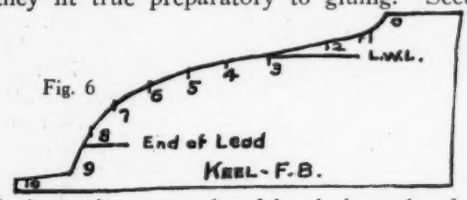


Fig. 6

porarily by toeing a couple of brads in ends of stock as shown.

Lay out length of load water line on joint between A and B block and locate amidships section (station 9) on same. Draw brads in block C and move out to edge of block B (broken lines shown in Sketch 8) and secure in position. Square line on three blocks from top face of A block. Carry this square line across top face of A block and down other side.

Gauge centerline on three blocks. Then with midship section, or Section 9, as a starting point, lay out stations 8-7-6-5-4-3-2-1-0 forward, and 10-11-12-13-14-15-16-17-18 aft by placing half breadth template on centerline, and transferring marks from same to the wood.

Square all station marks on top and sides of A block, and on sides of B and C blocks. Number all stations on top and sides of blocks.

Place template for keel in forebody (shown Fig. 6) being careful to locate properly at load water line and stem head, and trace outline of forebody. Note that station marks on blocks and template come true. Mark forward end of lead. Obtain outline for shape of afterbody keel line in same manner. Mark after end of lead.

Now take wing dividers and pick off sheer heights at each station for sweep of sheer line at side of hull and lay off on block. By securing a batten, which passes through these points, with small brads, a fair line can be drawn in with pencil.

Lay out top of lead line and dress parts that have been roughened by saw cut so that they make a close joint. Apply hot glue to each part, put single thickness of newspaper between and clamp in original position. Later this joint will come apart easily when the pattern is required to mold ballast. Lay out shape of bottom.

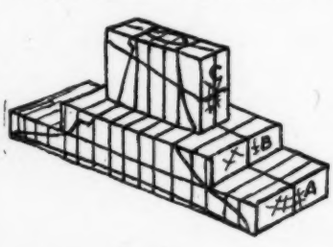


Fig. 9

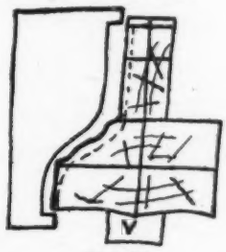


Fig. 10

Fig. 9 shows appearance of our blocks, marked, and ready for gluing. Note C block is back in original position.

Apply glue to each side of joint and clamp block back in position. Check to see that station lines are in proper relation to each other on each block. Any good water-

(*Continued on page* 341)

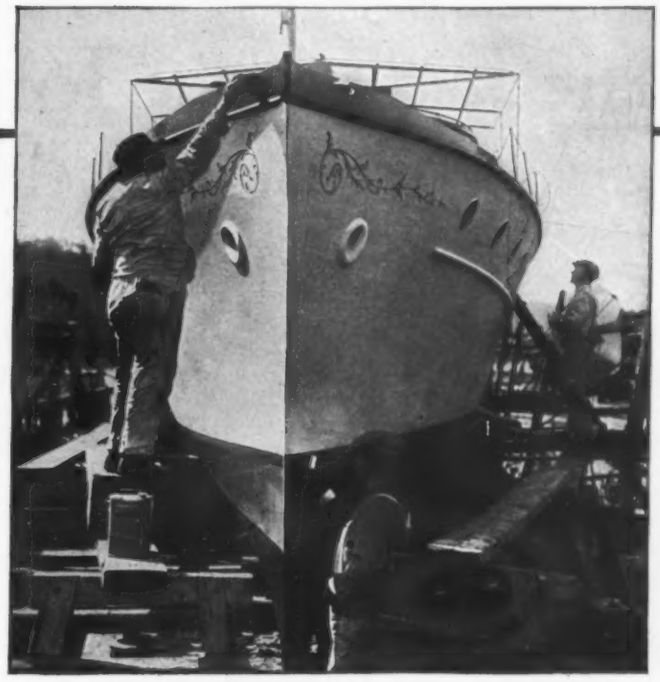


Photo by M. Rosenfeld

When Spring is in the air and you're getting the "old boat" ready for the water—that's the time to use Valspar, in any of its many forms.

Start the Season Right!

SPRING ahoy! The Yachting season is already within hailing distance. Time for you to cast a weather eye at that boat of yours and see what shape she's in for the coming year.

And start the season right while you're about it. When your boat slips into the water, see that she is properly finished in the most durable and satisfactory manner — which means Valspar, of course!

Valspar is the one and only seagoing varnish that is absolutely proof against water, salt or fresh—against snow, ice and steam. Nothing can make it turn white. A full-bodied yet easy-flowing clear varnish, it is the most elastic and durable finish for every type of craft that floats. Dries dust free in 2 hours, hard overnight.

These same waterproof, long-wearing qualities of Valspar are found in all the other Valentine products for use on boats.

Valspar Bronze Bottom Paint is a compound of Valspar with pure French Leaf Bronze. Two coats of this anti-fouling paint in the spring will keep the bottom of your boat clean as a whistle all season. Barnacles cannot adhere to it. Does away with the need for mid-season scraping.

Valentine's Yacht White and ***Yacht Black*** keep their original lustre no matter what weather conditions they encounter. They're high-grade, permanent paints that will make your boat look new and keep it looking new.

Valspar-Enamels are made by grinding the finest pigments in Valspar, giving you Valspar's waterproofness and durability plus beautiful lasting colors. There's a wide selection of rich, attractive shades.

Valspar Varnish-Stains enable you to stain and Valspar with one stroke of the brush. Valspar's protection and service are combined with any one of six beautiful transparent colors.

Other Valspar products which you will need on your boat are Valspar Aluminum Paint, Valspar Gold Paint, Valspar Boot Topping and Valspar Brass Polish Preservative. Made with Valspar, they have all the wonderful qualities that have made Valspar famous on sea and land.

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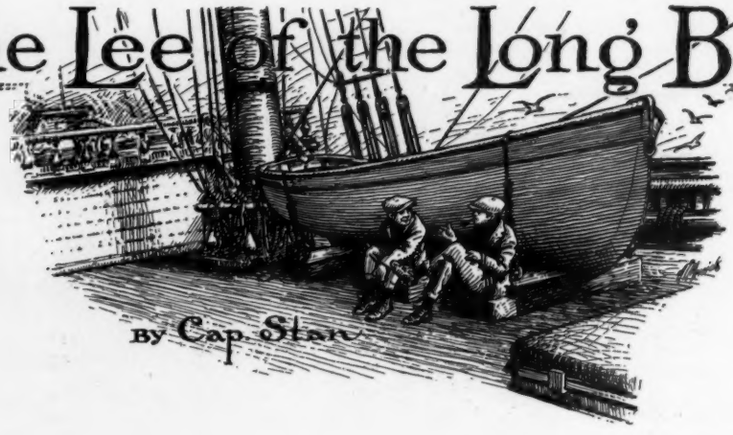
Valspar-Stain .	☐
State Color . . .	

In the Lee of the Long Boat



I SEE that Alain Gerbault has written up the story of his transatlantic crossing in *Firecrest* for McClure's (free ad.). It's a whale of a tale all right, the most remarkable part to me being the awful hardships which the Fearless Frog endured, most of them unnecessary. His sails blew away because they were rotten, and his rigging broke for the same reason. When his "salt horse," in casks, went bad, he had no reserves of canned stuff. His water became undrinkable, and apparently he had none in reserve tanks, jugs or bottles. Altogether, his hardships would have been greatly lessened had he been properly prepared. But there is one thing certain —for pure nerve, grit, determination and "stick-to-itiveness," Gerbault has it all over the average sailor like a club topsail.

* * * * * *

That appeal I made a couple of months ago on behalf of the two-sticker clan brought home the bacon—rind and all. The Skipper tells me that a generous yachtsman, who wishes to remain "incog." for the present, has offered two handsome cups for an ocean race for 2-stickers like the Brooklyn Challenge Race. So it's a go, boys! The American Yacht Club will run the race the same time as the Brooklyn, under the same rules and over the same course. Date and course to be announced later.

Many thinks to the donor of the two prizes. Now that we have the cups, and the American Yacht Club to handle the race, the only thing needed to make the affair a success is—entries. Get busy, two-stickers! Write for full and free information to H. deB. Parsons, Chairman Race Committee, American Yacht Club, Rye, N. Y.

* * * * * *

Now that the deed of gift of the Brooklyn Yacht Club Ocean Challenge Cup has been changed so as to allow entries of boats up to 35 R. M. we'll probably see quite a fleet fighting it out for this famous trophy. This is fine for the larger boats, but how does it help the little fellows, for whom the race was originally intended? And while they were altering the conditions, why didn't they make an allowance for auxiliaries? Practically all blue water craft have motors these days, and failure to give them an allowance for dragging a wheel certainly won't encourage them to enter. Perhaps they'll make a wheel allowance for the two-sticker class. I hope so, anyway.

* * * * * *

The Skipper informs me that unless more interest is manifested in the contemplated designing contest, that there'll be nothing doing. A few enthusiastic letters came in, but they were a mighty small percentage of the total number of people who read YACHTING—not enough by far to warrant the expenditure of time, effort, space and money necessary to see the deal through. Of course, you can still have it, providing you want it badly enough to write in and say so. But if you don't write, we'll take it for granted that you don't want it. It's entirely up to you, mates.

* * * * * *

"Art" Wendell reports that he overheard the following conversation before the boys sat down to the last dinner of the Cruising Club of America:

Sam: "Jack's goin' to have a maintopmast-stays'l bigger'n his fores'l for the race to the Onion Patch next summer."

Alf: "That's nothin'. Bob's raisin' the height of his mizzen from 39 to 50 feet. What d'ye think of that?"

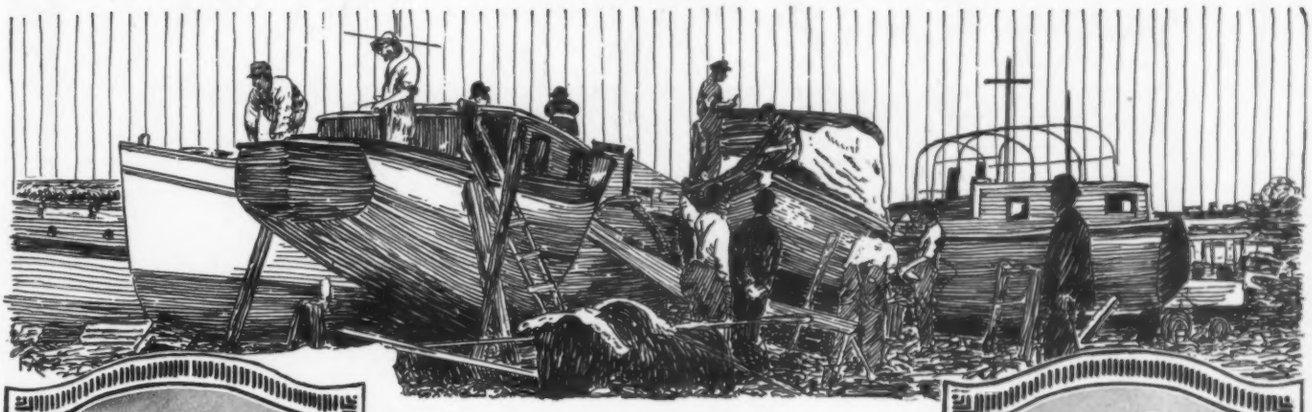
Sam: "Let's have another!"

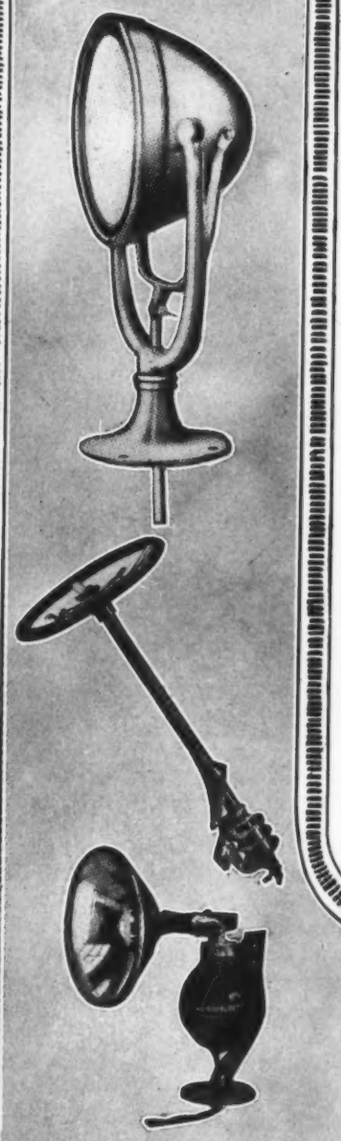
Yes, and Bob's getting a big squaresail besides, *Vanguard* is having topmasts fitted, *Sunbeam* has new sails, *Northern Light's* crew are already in training, Gordon Prince is saving his pennies to buy snake oil for the bottom of his new ketch (make her wriggle through the water, see?), and—yes, it's going to be some battle this year. Yea, Bo!

* * * * * *

"Marty" Kattenhorn, the genial skipper of the doughty little schooner *Surprise,* was one of the charter members of the Cruising Club of America when that club was organized a couple of years ago. For two years he has served on the Board of Governors—a quiet, tireless, efficient worker. Now the good word comes that he has been elected Commodore.

He should make a corking fine leader—for "Marty" is a splendid sailor, a real cruising man, the truest of friends, and a hard worker who has the best interests of the club at heart. May good luck attend him during his trick at the helm of the young organization which is daily growing in size and importance.





Spring!

Time to take the covers off and see how the good old tub has stood the Winter.

Time to make up your order for fitting out supplies.

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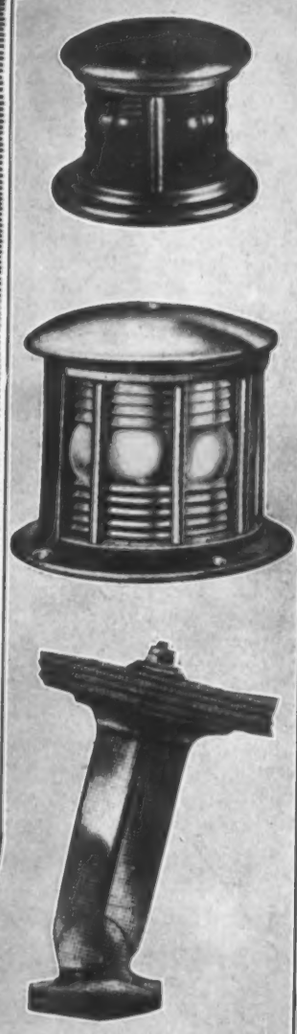
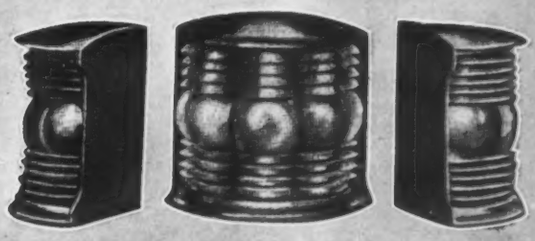
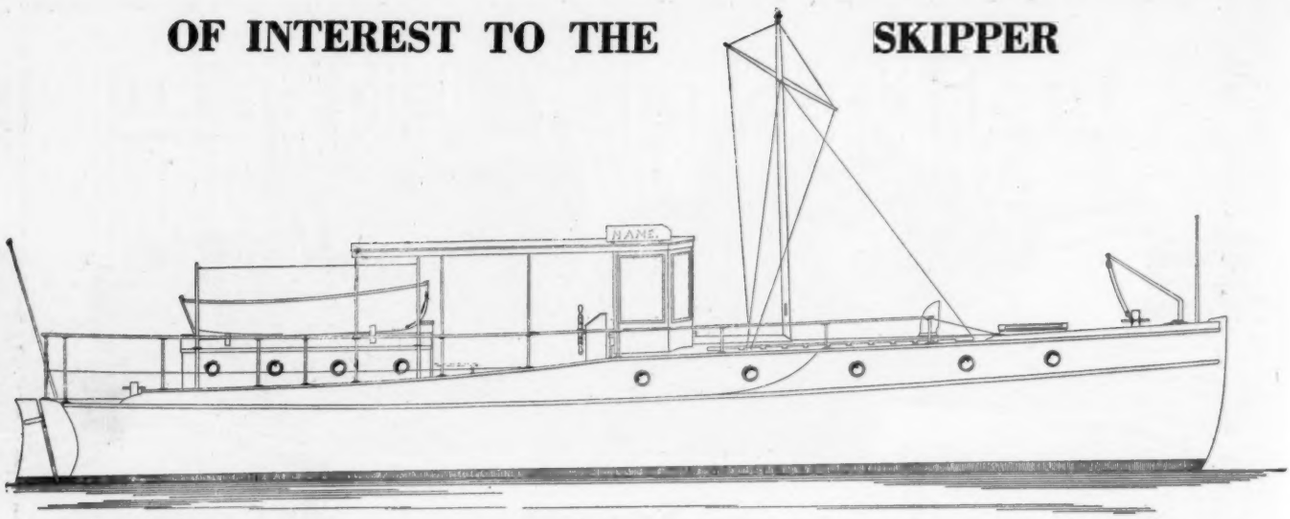




OF INTEREST TO THE SKIPPER



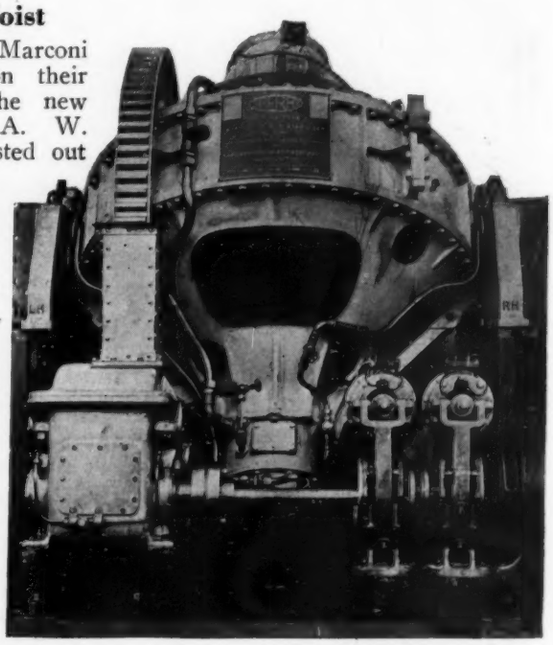
New 45-foot bridge deck cruiser turned out by the Gordon Boat Building Co. as a standardized stock design. One of these is under construction for B. R. Clark of New York.

A New Gordon 45-Footer

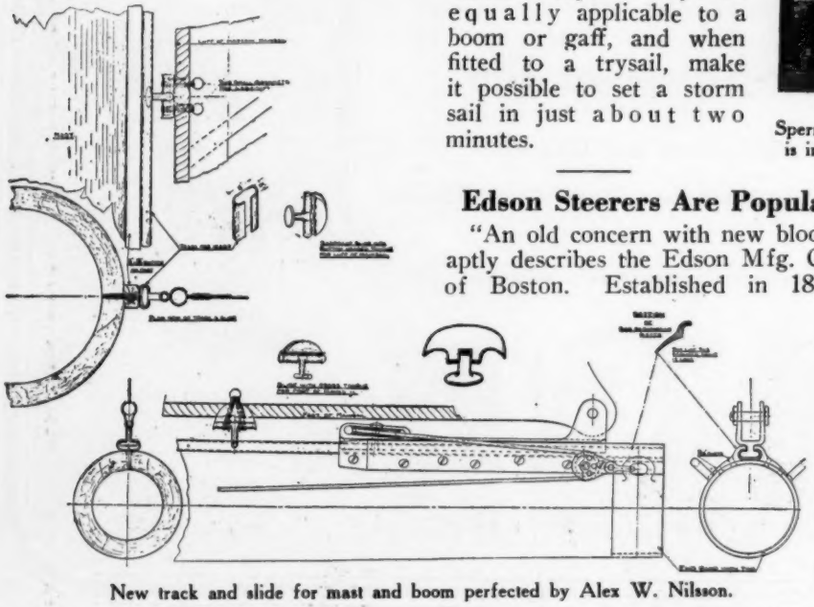
A new boat that is being turned out by the Gordon Boat Building Co. as a standardized design, is a 45-foot bridge deck cruiser, one of which is being built by this company for Mr. B. R. Clark of New York. The designs are by Wm. Atkin, and they show an unusually fine looking craft with a large bridge deck protected by a standing windshield at the forward end. There is an unusual lot of room below and the lines and construction have caused a lot of favorable comment by those who have seen the boat. The Gordon Company is also building five 34-foot standardized cruisers and have orders for five additional 45-footers, so that they are unusually busy this Spring.

The Nilsson Sail Hoist

Yachtmen who swing Marconi or jib-headed mainsails on their craft should investigate the new sail hoist designed by A. W. Nilsson, and thoroughly tested out on a number of racing boats last season. The track and slides are made of duralumin, the lightest known metal with the strength of steel, and are so designed as to work freely with the boom in any position regardless of whether the sail is full of wind or not. The slides never jam, and when the sail is furled the fittings adjust themselves so that the sail furls up in natural loops. They are equally applicable to a boom or gaff, and when fitted to a trysail, make it possible to set a storm sail in just about two minutes.



Sperry stabilizer for preventing rolling at sea. One of these is installed in the new 240-foot Diesel-driven yacht *Vanadis*.



New track and slide for mast and boom perfected by Alex W. Nilsson.

Edson Steerers Are Popular

"An old concern with new blood" aptly describes the Edson Mfg. Co.. of Boston. Established in 1859, their patented steering gears at once became favorites, being installed on such famous yachts as King George's *Britannia*, the *Atlantic*, *Puritan*, *Mayflower* and many others, both large and small. Donald McMillan's Arctic exploration schooner *Bowdoin* has one of their steerers, as have *Goodwill*, *Moby Dick* and *Dauntless*.

Their new model Simplex Steerer, recently placed on the market, has been specified and used by W. H. Hand, John G. Alden, Ford & Payne and others.

The First Varnish Factory in America

FOUNDED 1827

Reproduced from the oil painting by Jean Paleologue showing the first varnish factory in America with Pascal B. Smith, the founder of Edward Smith & Co., making hard fossil gum varnish in the small kettles then in use.

CUP DEFENDER VARNISHES

MADE EXCLUSIVELY WITH

HARD PETRIFIED FOSSIL GUMS

AQUATITE—A Spar Varnish

Due equally to the hard fossil gums and our process of manufacture, this varnish, like all the "Cup Defender Varnishes," is peculiarly free from the eventual deep hair line cracks so characteristic of the modern varnishes made with rosin or its synthetic product, ester-gum. It is the custom with users of AQUATITE to merely sandpaper it lightly each year on such parts of the boat as may have been exposed to the weather and apply another coat; a great saving of labor and expense over scraping frequently to the bare wood and applying several coats of varnish. Dries dust free in three to four hours and hard in twenty-four hours. Fresh, salt or boiling water does not whiten it.

Smith's Spar Coating

A spar varnish in the old seafaring meaning of the word. It is only equalled by Aquatite for brilliancy and durability but is slower drying. Under favorable conditions dries dust free in from four to six hours.

I.X.L. No. 1

A most elastic and durable varnish for cabins. It has the depth of lustre and brilliancy that only hard fossil gums can give. May be rubbed to a dead finish in three to four days and polished in five to six. Unaffected by water.

I.X.L. Floor Finish

A varnish of the most enduring quality for preserving and beautifying protected decks. It clearly demonstrates the resistance to hard usage that is given by the hardest fossil gums. Dries hard over night. Waterproof.

MARINE ENAMELS AND PAINTS

Smith's Yacht White

A semi-gloss coating that may be washed and scrubbed. Does not yellow in Southern waters. Has the least tendency to show laps when the hull is retouched. Very white and dries quickly Made also in gray.

Smith's Marine White Enamel

Made especially for the exterior of yacht and motorboat hulls. Extremely hard and very brilliant. Stays white in Southern waters and is easily cleaned.

Smith's Yacht Black Gloss

A brilliant, intensely black enamel made especially for the exterior of yacht and motorboat hulls. It is extremely hard and durable. Has the least tendency to mar or show scratches.

Smith's Yacht Deck Buff

Does not whiten, chalk or bleach out under sun and weather. Very hard, yet elastic where used on canvas covered decks. Dries quickly.

Smith's Yacht Bottom Green

This paint is designed to give the greatest possible protection against fouling from any cause.

"ESCOLAC"
The Salt Waterproof Lacquer

"Turns Polishing Days Into Holidays."

A weatherproof and waterproof, transparent, invisible, quick-drying coating to prevent metals from tarnishing or rusting either indoors or outdoors.

EDWARD SMITH & CO.

127 West Ave. **Long Island City, N. Y.**

39 years

The ginger ale for all time

Clicquot Club Ginger Ale is probably older than you are. It began its career thirty-nine years ago, and now it's a national figure. *They all like it.*

A lot of Clicquot Club has been made in that span of time. Years of know-how in the making of it, years of putting into it just the taste-qualities that appeal to everybody—small wonder Clicquot knows how to quench a thirst! Small wonder it has its hit-the-right-spot taste—that magic blend of crystal spring water, honest ginger, and a dash of fruit flavors.

Go to Clicquot Club next time you're thirsty—and forever after when you want ginger ale, you'll say *Clicquot Club.* Order by the case from your grocer, druggist or confectioner.

THE CLICQUOT CLUB COMPANY, MILLIS, MASS., U. S. A.

Clicquot
PRONOUNCED KLEE-KO
Club
Ginger Ale

Clicquot Club
SARSAPARILLA

What a sweet, rich goodness! Cream it up like coffee. That's called Black Cow.

Packard Marine Motors

That the Packard Motor Car Company looms as a probable big factor in the motor boat engine building industry is indicated by an announcement of the company just made that it has gone into production on two new types of marine motors. This gives a complete line of five marine power plants, covering a broad field of power for craft from the 18-foot fishing boat to express cruiser.

The first of the two new engines is a straight-eight. This motor, while it incorporates certain features which have been carefully proven in automobile practice, is primarily designed for marine purposes and is a strictly marine power plant. It is rated 60-75 H.P.

The other is a 6-cylinder marine design in which is incorporated the features which have been so thoroughly tested in the six motors installed in the U. S. Navy's great airship *Shenandoah.* It develops 275 h.p. Both are said to be particularly suited for express cruisers.

The other marine motors on which the Packard has standardized and on which the company now is in production are the Gold Cup and Sweepstakes models.

Throw Away Your Metal Polish!

Once a month is often enough to polish up the brasswork in these days of Escolac, the new product of Edward Smith & Co. For this new lacquer, applied when the brass is nice and shiny, preserves the lustre for an indefinite period, even though the brass is subjected to a deluge of salty spray. So when you're fitting out, polish up the binnacle and the ship's bell, apply a litle Escolac, and your brass will keep its sparkle for a month or more!

New Racing Catboat for Toledo

George C. King of Toledo, Ohio, has ordered plans for a racing cat boat from Henry J. Gielow, Inc., and the craft is being built by Henry B. Nevins, of City Island. The boat is planked and presents an exceptionally smooth appearance. The principal prize for which the boat will compete this year is the Richardson Cup, to be sailed for in Maumee Bay; each contesting club to be represented by three boats. It is reported that seven boats are beinig built for members of the Detroit Yacht Club, and five for the Toledo Yacht Club.

Niagara Plant Busy

To keep pace with the increasing demand for their well known product, the Niagara Motors Corporation, of Dunkirk, N. Y., has made a number of changes in the factory organization. Mr. George B. Weaver, of Buffalo, who has had many years' experience in the manufacture, production and inspection of the highest grade motors, will hereafter have entire charge of the Niagara factory, with general supervision of the business as heretofore handled by Charles Narraway, general manager.

New machinery which arrived recently is now being installed, and the Niagara people report that after completing their biggest year preparations have been made to meet the increasing demand for their complete line of engines for boats from 16 feet to 75 feet in length.

Tams & King Active

Considerable spring activity is reported by Tams & King, in the sale, charter and reconditioning of yachts for the coming season.

The large twin screw motor yacht *Skylark,* formerly owned by Mr. Brewster Jennings of Tuxedo Park, has been sold to Mr. J. B. Berryman of Chicago. Mr. Berryman is making extended alterations to the boat under the supervision of Tams & King. The yacht, which will be ready early in the spring, will be used on the Great Lakes, with Chicago as her home port.

The express cruiser *Whim,* formerly *Skipaki,* has been sold by Mr. Harrison Williams to Mr. Jeremiah Millbank, who will use her commuting between his country place at Byren Shore and New York. She has been renamed *Jem.* Equipped with two 220 H.P. Speedway motors, *Jem* will be one of the fastest boats commuting regularly to 23rd Street.

The 120-ft. twin screw motor yacht *Hibiscus* has been chartered for Mrs. Martin Van Buren to a well known member of the New York Yacht Club, who is now using her in Southern waters.

The auxiliary schooner yacht *Iris,* recently sold to Mr. Felix M. Warburg of the Eastern Yacht Club, is now being completely reconditioned, including new sails, electric winches for hoisting sails, etc.

The Elco Veedette *Nancy Pat* has been sold to Mr. Van S. Merle Smith, and the sloop *Blue Star* has been sold to Judge Charles C. Nott, Jr., of Black Point, Conn.

Are you the lucky one in five?

Not if your gums bleed easily
Check Pyorrhea with Forhan's

Pyorrhea, destroyer of teeth and health, plays no favorites.

Dental records show that four persons out of every five past 40, and thousands younger, too, are Pyorrhea's victims.

Heed Nature's warning—tender, bleeding gums—before it is too late.

Better still, stop Pyorrhea before it strikes by regular visits to your dentist and by brushing your teeth twice daily with Forhan's For the Gums.

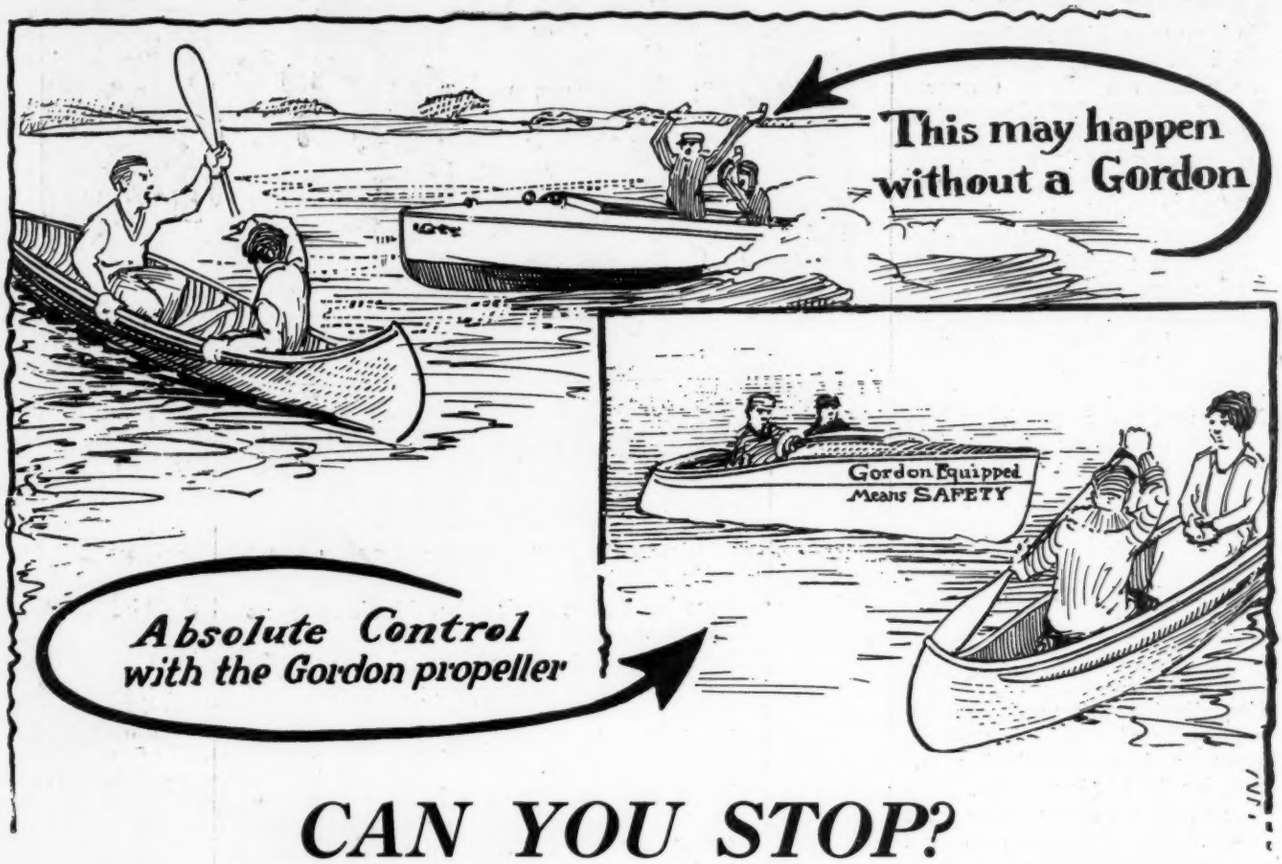
Forhan's For the Gums, if used in time and used consistently, will help prevent Pyorrhea or check its course; keep the gums firm, the teeth white, the mouth healthy.

There is only one tooth paste of proved efficacy in the treatment of Pyorrhea. It is the one that many thousands have found beneficial for years. For your own sake make sure that you get it. Ask for, and insist upon, Forhan's For the Gums. At all druggists, 35c and 60c in tubes

Forhan's

FOR THE GUMS

More than a tooth paste—
it checks Pyorrhea



CAN YOU STOP?

Imagine circling out from the dock speedily, pointing her straight up the shore, holding to cut that point of land sheer where you know the water is deep and just as you get abreast of the point—OUT SHOOTS A CANOE:—Can you stop at full speed?

A BOAT IS ONLY AS GOOD AS ITS PROPELLER

If you act now you can have absolute control of your boat independent of your engine. Travel as you would like to travel, slow for trolling or racing at high-speed regardless of motor.

Just imagine how a boat handles when you start—stop—reverse—all with one direct movement of a control lever having a positive—quick—easy—powerful boat control. 100% efficient—No clutch. No transmission. No clashing or stripping possible. Gears permanently engaged. Engine and Hull spared all shock. No Gordon Propeller Equipment has ever gone wrong—

Features that are EXCLUSIVE { No propeller trouble. No Reverse Gears. No Foundry Wheel. No Breakable Hub. Costs less. Shaft free of twisting and wrenching. Weedless both ways. Breaks 4" Solid Ice. Sand and Dirt Proof. In Feathering—no drag—no water disturbance.

Marvelous smoothness—whether engine is "Wide open" or throttled. 5 to 15% more speed. Stops your boat at high speed within its own length.

SNAPPY, CAREFREE MOTORBOATING

proclaimed by present users as "The best ever." Get the full pleasure of your boat this summer. Show the crowd how a motor boat can handle—pick up—stop dead—reverse—

ALL WITH ONE SWEEP OF YOUR HAND—

Just the time to secure your delivery now before the season's rush begins. Install a Gordon Propeller Mechanism. It's only a matter of a few hours to make the change. If you will order within 30 days, we will allow transportation charges. Direct from factory assures prompt delivery.

Try it. Use it. Test it out. See for yourself. Guaranteed for the life of the boat. First Cost—Last Cost—send the coupon today for particulars without the least obligation to buy.

TEAR OFF AT THIS LINE—MAIL TODAY

Gordon Propeller & Mfg. Co.,
Edgewater Beach,
Cleveland, O.

Gentlemen: Without obligation, please send prices and further particulars of your Gordon Propeller for specifications below, which are exact for my boat—

Overall Size.....Type.....
Speed.....Engine Power...
Size Present Propeller.....
Name.....
Street.....Shipping Point.....
City.....State.....
Kind of Boat, × Check in Square:
Tug ☐ Schooner ☐ Speed Boat ☐ Cruiser ☐
Pleasure Boat ☐ Fishing Boat ☐
Present Propeller
R. or L. Hand Wheel.....R. P. M.....
All wheels three blades unless otherwise requested.

Gordon Propeller & Mfg. Co.

Edgewater Beach
CLEVELAND, OHIO

"SIMPLEX"

Our Latest Type. Compact, Durable, Efficient
Also Built with Screw Part Aft of Rudder Post

Our 1924 Catalogue of Revised and New Designs Furnished on Application

EDSON

Registered U. S. Patent Office

Originators and Builders of World Famous

STEERING GEARS
BILGE PUMPS
MARINE SPECIALTIES

Edson Special Exhaust Hose

will solve your exhaust line problem either on your new boat or for replacement of old pipe line.

This HOSE is specially constructed for engine exhaust service. It is flexible and easily installed. Having no elbows or obstructing connections, back pressure and the objectionable features of pipe exhaust lines are eliminated, resulting in a noticeable increase in the power of your engine.

EDSON MANUFACTURING CORPORATION

Established 1859

NEW YORK
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375 Broadway, BOSTON, MASS.

MR. F. B. SILSBY

formerly of the well known firm of

WILSON & SILSBY

is now in charge of the Sail-making department of

C. E. BECKMAN CO.

Fine Yacht Sails

New Bedford, Mass.

What the Boat Owner Has the Right to Expect for His Money

A man knows pretty well what he is buying. He places implicit faith in the Naval Architect whose designs he has accepted, and relies on his experience to see that everything from keel to truck is of the finest workmanship. He is therefore entitled to the very best in hangings, upholstery and furniture work.

EXPERIENCE

Our recent alterations of furnishings on "Whileaway," "Captiva" and other large yachts is ample proof that we are most capable of doing this work.

Naval Architects should investigate our service. They can do so without incurring the slightest obligation.

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INTERIOR DECORATOR

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Telephone: Murray Hill 1308

See the Captain, the Owner and his Guest comparing and setting their watches at 8 BELLS, struck on the Large BELL forward by the (Patented)
"CHELSEA" AUTOMATIC STRIKING SHIP'S BELL CLOCK
The small "CHELSEA" ship's Bell clock in the cabin operates the large bell forward. Clock and bell can be located to suit wishes of owner. By a special push button, the bell can be rung continuously; very useful in case of fog, etc. If so desired, as at night, the striking on large bell can be omitted. ANY of the many plain or elaborate models of the "Chelsea" Ship's Bell Clocks can be outfitted by us to operate our Automatic outfit. Every Yacht, medium and large-sized Motor Boat, House Boat, Steamship, Yacht Club, Marine, Naval Architect and Shipping Office, Seashore and Country Estate, etc., should be equipped with one of these attractive and useful outfits. For country estates, etc., gives audible time over large area and permits system of calls from residence for Chauffeur, Gardener, Coachman, etc., very useful.
On Sale by Dealers in Nautical Instruments and High-Class Jewelers
CHELSEA CLOCK CO., 10 State St., Boston, Mass., U. S. A.
Makers of High-Grade Clocks
REPUTATION THE HIGHEST AND WORLD WIDE
SHIP'S BELL, MARINE, HOUSE and AUTOCLOCKS

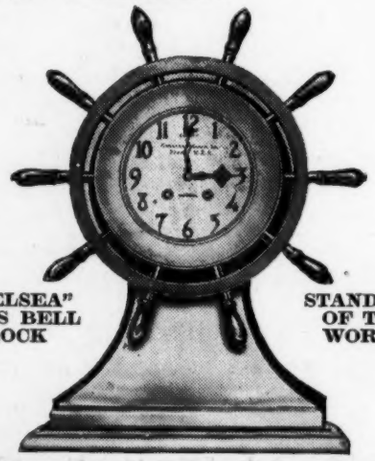
"CHELSEA"

8 Day, High Grade World Renowned CLOCKS

—— All Others Are Comparative ——

Dealt in and used by those demanding the BEST.

Mantel clocks in refined metal and mahogany cases—for use in refined residences and general Presentation Purposes. Ship's Bell, marine, yacht and autoclocks. YOU want the BEST? Buy the "CHELSEA."



"CHELSEA" SHIP'S BELL CLOCK

STANDARD OF THE WORLD

Overhauling the Motor

(*Continued from page 277*)

smeared again with the blue, very lightly, and the process repeated, again and again. Each time this reveals an increasing area of "high spots," until finally the whole bearing bears evenly upon the journal for the full surface. Specially shaped scrapers are used and should be very sharp. Of course, scraping soft babbitt metal bearings is a quicker operation than scraping bronze bearings. It is, however, in any event, a long-winded job, as after each scraping the crankcase halves, or connecting rod halves, or crankcase and bearing cap halves, must be bolted together. For the main bearings, all must be inserted together, the bearing requiring the most scraping being handled first until it approaches the condition of the others, and then all handled together. The amateur will find this a heart-breaking job, scratching off so little every time and putting the parts together again, merely to scratch off so little the next time. The secret of scraping is to *scrape* off only enough to bring the high points down to a common level. The journals themselves should be examined to see if they are smooth and true. Bronze bearings will often score the journals, so that the latter will look as if they had about one hundred threads to the inch. This must be remedied by the shop.

All oil tubes, channels and holes in crankcases, bearings and connecting rods should be cleaned thoroughly with gasoline. The camshaft bearings should be looked after in the same manner as the crankshaft bearings. Gear bearings are usually in one piece, and if worn must be renewed; or bored out and bushed. Gears that are worn so as to be too noisy can be cured only by renewal.

The oiling system covers everything from the simple oil cup on some two cycle engines to the elaborate pump pressure, cooled systems on high speed motors. All types should be cleaned thoroughly with gasoline. Oil cups may require new washers to stop messy leaks, and new adjusting stems if bent or worn. Many such stems are so worn that every adjustment gives the same feed. If the seat is worn, or scored, it is often cheaper to get a new part than to have it repaired in the shop. The pump systems of various forms require after cleaning all of the tubes and passages thereof, much the same treatment. If of the gear type, worn gears must be renewed and shafts and bearings put in good shape either by turning down the shafts and bushing the bearing part of the case, or replacing with new shaft. The gears must run true and close to get good pumping action. Be careful that the pump gasket is in good shape in assembling the pump. See that the stuffing box has sufficient packing, or if a washer is used, that it is in good shape. The plunger type requires that the check valves be in good shape, free from that gummy material found in oilers, especially the suction valve; if the valves have springs, examine these carefully.

The water system is our next concern. We have everything now in good shape up to the shut-off valve on the intake. Take this important member apart for inspection; some of those elusive leaks will be found. If corroded through, or if a little sand hole has broken through, renewal is the answer. The pump will be either rotary or plunger. Rotary pumps require the treatment indicated above for rotary oil pumps. Be sure that it has sufficient packing, but do not screw down too tight, as something might give. The pin that fastens the gear to the shaft is a weak point; examine it thoroughly, as it may be broken inside of the gear and thus not apparent to the eye. This is a frequent and unsuspected difficulty. If a check valve is used in the suction line to hold the water, stop right here and go over it. Suction checks have a habit of sticking from corrosion after a winter of disuse, and in starting the motor suction pressures are so small that the valve

will not lift. Lift same up and make sure that it is perfectly clean; this will save serious trouble later. Plunger pumps have suction and discharge checks; get after them, especially the suction check valve. Look after the stuffing box packing and repack if necessary, but do not screw down too tight; rather a little loose, tightening later while in operation.

We now come to the fuel system. Intake manifolds chiefly require that the joints to the cylinders be air tight; this requires a good gasket. In some cases where the machined faces have warped or been bent slightly, amateurs often shellac the gasket to both cylinder and manifold; this is merely an expedient. The carburetor will require considerable attention. Disassemble the float chamber, wash out thoroughly with gasoline, making certain that all drops of water are removed. Make a minute examination of the float, especially if it is of the hollow metal type. This type often has very small holes or cracks which permit the float to fill so that it functions poorly. The cork variety should be left to dry thoroughly for a few days and then given two or three coats of shellac. The shut-off needle valve and its seat should be examined. To test the tightness of this part, turn the bowl upside down, with float attached to needle valve mechanism; by mouth, suck out the air from the inlet chamber controlled by the needle valve, and seal the suction with the tongue; the slightest air leak will break the vacuum, so that if it is tight this way, it will be tight for gasoline. The needle valve should be ground to its seat, if unsatisfactory, with fine powdered glass. Wash thoroughly afterward. The gasoline strainer should be cleaned and examined for punctures or cracks in the netting or chamois.

The electrical system concludes our work. This may be divided into the starting-lighting system, and the ignition system. The first group consists of an electric motor and generator, or combined unit, and with these, the amateur can do very little. In fact, overhaul of these elements is not a machine shop job, but properly an electrical job. The amateur can put in new brushes and examine the fuses, replacing same if blown.

The ignition system can be looked over with profit. The make-and-break ignitor should be soaked in gasoline for a while to loosen the burnt oil between the mica washers, if this type is used. This carbon is the cause of much unsuspected electrical leakage. The washers should be squeezed together tightly by the nut. The little ignitor springs are often rusty, or have lost their elasticity; replace them for snappy running. The contact points should be smoothed and squared with a fine file. There should be no craters or hills on either contact; the spark is strongest when the electrical break is most abrupt, not a slanting, lingering break. The illustration, Fig. 6, shows what is required.

The Fisher-Allison Trophy Protest

(*Continued from page* 263)

selected Col. Hayward, who for technical advice and counsel retained E. W. Marshall, a New York patent attorney, specializing in engines.

After weeks of deliberation the first protests were allowed, disqualifying Commodore Wood and Col. J. G. Vincent and their boats. In making this decision Col. Hayward allowed the protest against Commodore Wood, on the ground that his power plants were originally constructed for aviation service and then redesigned. He disqualified Col. J. G. Vincent, not on the ground that the Packard engine was not a marine engine and produced as such, but because it was a development of the Packard aviation engine and not originally designed for marine purposes.

The New Trade Name of L. W. Ferdinand & Co.

Get acquainted with the label

The following products are now included in the FERDICO line.

FERDICO SEAM FILLER

A Marine Glue Composition. Ready for use. Can be applied with a putty-knife like putty and seam compositions. Being of Marine Glue base it is permanently elastic and therefore durable in a seam.

For Deck and Hull Seams of all types of vessels —Superior to putty, also used for setting Glass and Bedding Decklights, where a watertight joint is required.

For sealing leaks between House and Deck, around Hatches along Garboard Strake, Centerboard Trunks, etc.

FERDICO HANDY STICK STOP-A-LEAK

A Marine Glue in Handy form. Made in Black only. For stopping leaks anywhere. Packed in form which is convenient to store and ready to use.

L. W. FERDINAND & CO.

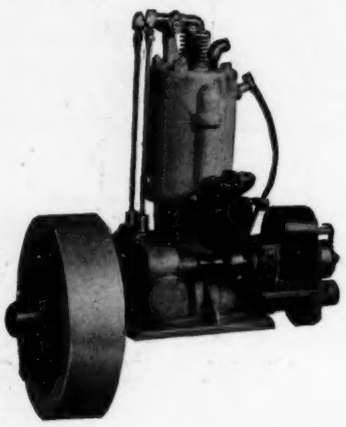
152 Kneeland St.,

Boston, Mass.

Send for new booklet on Marine Glues just off the press, completely revised.

A New Palmer Model YT

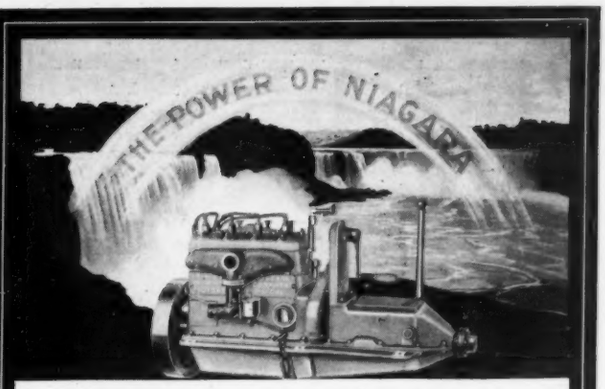
Two horsepower Weight 97 lbs.



Other sizes up to 80 H. P.

PALMER BROS. ENGINES, Inc.
COS COB, CONN.

BRANCHES:
Baltimore Boston Jacksonville New York Norfolk Philadelphia Portland, Me.



HERE IT IS!!

A real marine engine for open boats, small cruisers, launches, tenders—boats from 16 ft. to 32 ft. in length. 4 cyl., 4 cycle, 9 to 15 H. P. "SPECIAL."

SUPERIOR ENGINES FOR EVERY TYPE OF BOAT

TWO, FOUR OR SIX CYLINDER

12-14 H.P. 25-35 H.P. 40-60 H.P. 80-120 H.P.

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NIAGARA MOTORS CORPORATION
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Uniforms for Yachting

Yacht Crews Uniformed at shortest notice according to Club regulations.

Caps and Devices of all Clubs.

Oiled Clothing for men, women and children.

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16 and 18 Fulton Street, New York

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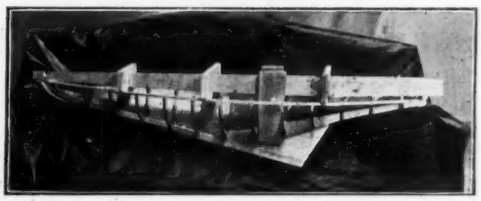
MODEL YACHT BUILDERS



MODEL TRAWLER, TUGBOAT, etc., 4 ft. overall. Set of parts and plans similar to above. Price 32/6, carriage free on board.

12-METRE MODEL. L.O.A., 63 in.; L.W.L., 41 in.; Beam, 12.5 in.; Draught, 8.15 in. Set of parts to construct this Model, with all brass screws, copper pins, and set of construction and sail plans. All parts cut from best selected mahogany. Price 47/6 net, carriage free on board.

6-METRE MODEL (2 in. to 1 ft.). L.O.A., 64 in.; Beam, 13 in.; L.W.L., 41 in.; Draught, 10 in. Set of parts and plans obtainable. Price 52/6 net, carriage free on board.

5-RATER MODEL. L.O.A., 42¼ in.; L.W.L., 30 in.; Beam, 10 in.; Draught, 7 in. Set of parts and plans. This set includes lead keel, mast and spars. Price 30/-, carriage F.O.B. This Model being only 9¼ lbs. weight when complete is most suitable for boys and has been adopted by several M.Y. Clubs as a one-design class for juvenile members.

DICKIE & LENNOX

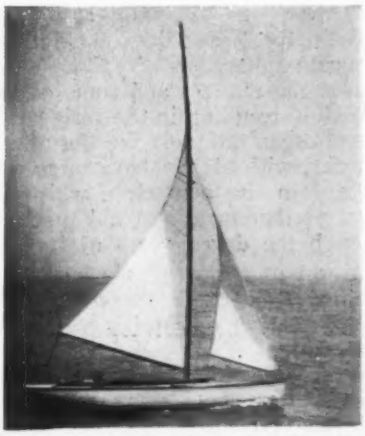
Model Yacht Designers

195 High Street, AYR, Scotland

Please enclose stamped envelope for replies.

"KID," winner of "Queen of Bay" cup, 1924, on Great South Bay. Length, 36 ft. 10 in.; beam, 10 ft. 6 in.; draught, 3 feet; about 2,300 lbs. lead ballast moulded into keel. New Ratsey sails 1924; used only in 6 races. Winner of many races on Great South Bay and very comfortable for family sailing. Price, $1,100. Joseph W. Lawrence, owner, 135 East 94th St., New York City.

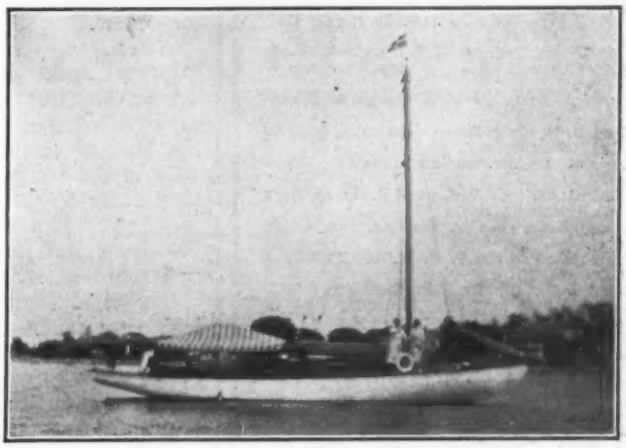
NO. 818—FOR SALE—Auxiliary knockabout, built 1923, 28' 6" x 20' 6" x 6' 8" x 4' 9". Straight Marconi rig. Outside lead ballast; copper fastened. Good sized self bailing cockpit. 3 h.p. Hubbard motor, feathering propeller. Cabin with two berths. High grade construction. Smart under canvas; unusually able and dry. Apply John G. Alden, 148 State St., Boston.



NO. 806—FOR SALE—Marconi rigged knockabout, 20' 3" x 14' x 6' 6" x 3' 6". Completely overhauled in 1922 and fitted with new rig, not used in 1923. Equipped with air tanks, making her unsinkable. Just the boat for your boy. Condition excellent. Price $500. FORD & PAYNE, 41 East 42nd Street, New York City.

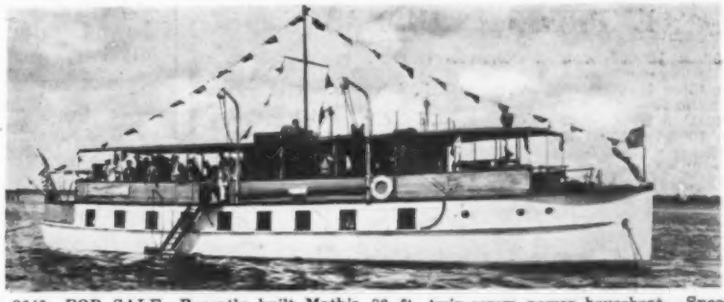
FOR SALE—Aux. Schooner Yacht Rainbow—54' x 40' x 15' x 8' 6". Completely rebuilt and re-equipped and re-rigged 1923. Unsurpassed on Great Lakes as able seaboat and many times winner in schooner class. Accommodations—five double and three single berths, including roomy double stateroom. Separate engine compartment—large well-equipped galley and forecastle. Extremely roomy on deck and easily handled by short crew. Just the boat for the Bermuda or Mackinac race. Price reasonable.

Apply SHELDON CLARK, 111 W. Washington St., Chicago, Ill., or your own broker.

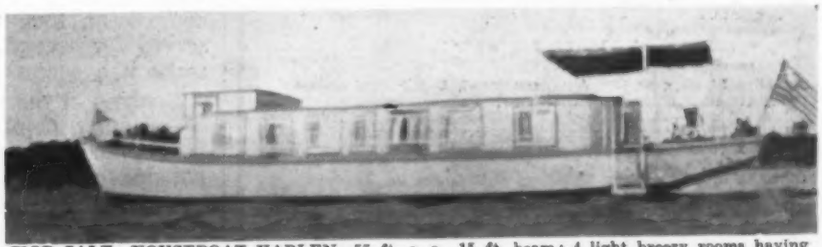


FOR SALE

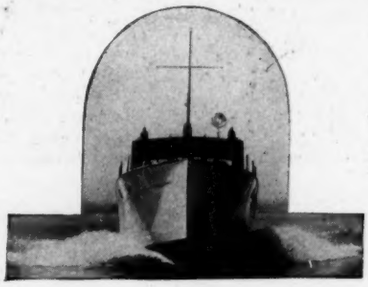
Auxiliary C. B. Sloop 45'x30'x 13'x4', 12 H.P. motor (new electric lights toilet. water tanks 1923), well equipped, Lawley dinghey, big cockpit, splendid cruiser. Owner has larger boat, will accept reasonable offer. Any New York broker or Sydney Breese, Port Jefferson, L. I.



NO. 2640—FOR SALE—Recently built Mathis 80 ft. twin-screw power houseboat. Speed up to 12 miles; two 6 cylinder 60-70 H.P. Standard motors. Deckhouse contains dining saloon; four staterooms, saloon, two bath and toilet rooms below forward. Hot water heat. Completely found. Price reasonable. Cox & Stevens, 25 Broadway, New York City. Telephone Whitehall 2700.



FOR SALE—HOUSEBOAT HARLEN—55 ft. o. a., 15 ft. beam; 4 light breezy rooms having 19 full sized windows. Well equipped, including running water, ice box, toilet, beds, dresser, etc. This 20-ton smooth riding boat would make an ideal all-year-round home for some landlord hater with a family. Deck space all around with railings so that the kids or any unsteady guests can't fall overboard. Inside freshly painted, but a gallon or two spread outside would not do any harm. Go up to the City Island Yacht Club and ask for Capt. Hansen of the "Young Miss" and he'll show you the find of the season. A day's delay may mean this splendid opportunity is gone. $350 combined wi'h prompt action, and it's yours. L. B. Schwarez, 246 Front St., N. Y. C. Phone Beekman 2234.



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98′ x 17′ x 6′ ocean going Cruiser. (2) Winton engines.
90′ x 16′ 6″ x 4′ 6″ Bridge Deck, (2) 80 H.P. Buffalo motors.
62′ x 12′ x 3′ 9″ Bridge Deck, 70 H.P. Murray & Tregurtha. Two large staterooms aft, galley and dining saloon forward. Crew's quarters peak, engine room amidship.
60′ x 12′ x 3′ 7″ Bridge Deck, (2) 50 H.P. Sterlings.
60′ x 10′ 6″ x 4′ Bridge Deck, 60 H.P. Standard engine.
52′ 9″ x 9′ 6″ x 3′ 6″ Bridge Deck, 40 H.P. Lathrop. Hull double planked.
49′ 10″ x 10′ 4″ x 3′ 6″ Bridge Deck, 36 H.P. Standard. Semi-inclosed bridge, plenty of deck space, a very heavily constructed and able boat.
46′ x 10′ x 2′ 10″ Bridge Deck, 30 H.P. Mason & Jaeger engine.
42′ 8″ x 10′ x 3′ Bridge Deck, six cylinder, four cycle 85 H.P. Fay & Bowne motor. Boat built in 1917.
45′ x 10′ 7″ x 3′ 4″ Elco Cruiser. Standard engine. Self-starter.
40′ x 9′ 6″ x 3′ 6″ Raised Deck Cruiser, 24 H.P. Lamb, boat finished in white and mahogany.
40′ x 10′ x 2′ 6″ Bridge Deck, 55 H.P. Sterling, two double staterooms and toilet.
40′ x 10′ x 3′ 6″ Bridge Deck, 40 H.P. J. V. B. Full head room in cabin, large cockpit.
40′ x 9′ x 3′ 6″ Raised Deck, (2) 20 H.P. Kermaths. Self-starter and generator. Full headroom in cabin, boat in first-class condition.
40′ x 12′ x 3′ Raised Deck, 30 H.P. Vulcan. Large cockpit standing top and side curtains. Built in 1918.
40′ x 10′ 7″ x 3′ Bridge Deck, 40-50 H.P. four cylinder Peerless Marine Engine.
38′ x 11′ 6″ x 3′ 6″ Raised Deck, 35 H.P. motor. Boat completely equipped with curtains and awnings.
32′ x 9′ x 2′ 6″ Raised Deck, 20-35 H.P. Sterling.
32′ Elco Cruisette. J. V. B. Engine. Boat in first-class condition. Fully equipped.

EXPRESS CRUISERS

65′ 5″ x 12′ 6″ x 3′ 4″ Express Cruiser, (2) 8 cylinder Sterling engines.
60′ x 13′ x 3′ V bottom. (2) 150 H.P. Sterlings. Very commodious.
55′ x 11′ x 2′ 9″ Express Cruiser, (2) 150 H.P. Van Blercks.
50′ x 10′ 9″ x 3′ 3″ Express Cruiser, 160 H.P. 8 cylinder Van Blerck. Built by Great Lakes Boat Building Company.
37′ x 6′ 6″ x 3′ 6″ Express Cruiser, 40 H.P. four cylinder Wisconsin motor. Boat has self-starter on motor.

HOUSE BOATS

45′ x 14′ 6″ x 3′ Houseboat, 80 H.P. Buffalo.
52′ Mathis Houseboat, Standard engine.
60′ x 14′ x 2′ 6″ Houseboat, 1922 (2) Standard engines, 3 staterooms and deck saloon.
65′ x 13′ x 3′ Houseboat, 70 H.P. H. D. Standard, 2 double and 1 single staterooms.
74′ x 19′ x 3′ Houseboat, (2) 50 H.P. 20th Century engines, 2 double and 2 single staterooms, large deck saloon, handsomely furnished.
80′ x 17′ 6″ x 3′ 3″ Houseboat, 70-90 H.P. (2) Standard engines.

AUXILIARIES

26′ 3″ x 8′ 3″ x 3′ 10″ Auxiliary Yawl, 5 H.P. Bridgeport.
38′ x 11′ 4″ x 3′ 6″ Auxiliary Yawl, Palmer engine.
40′ x 12′ x 3′ 6″ Auxiliary C. B. Sloop, 6 H.P. Lathrop.
53′ 5″ x 12′ x 7′ 6″ Auxiliary Sloop, Bridgeport motor.
55′ 6″ x 18′ 6″ x 5′ Schooner Yacht, excellent condition. Will sell cheap.
60′ x 16′ x 4′ Auxiliary Schooner, Frisbie engine.
63′ 6″ x 15′ 6″ x 4′ Auxiliary Yawl, Scripps engine.
70′ x 15′ x 9′ Auxiliary Schooner, Lathrop engine.
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M. Roosevelt Schuyler

(*Continued from page* 268)

A. Cary Smith, Robert Center, John Hyslop, James Stillman, Charles Stillman, Captain S. Grosvenor Porter, A. Bryan Alley, John McG. Woodbury, J. Leslie Cotton and C. P. Kunhardt. When Mr. Kunhardt retired from the editorship of *Forest and Stream,* in 1884, to take up other pursuits, it was the writer's good fortune to take his place on the firing line in a fight which was at least interesting at the time, and which is very pleasant today in retrospect.

While all were united on the general principles of the cutter, depth of body, displacement, keel and outside lead, there were various degrees of faith which may be classed as "six-beam," "five-beam" and "four-beam," according to the proportion of waterline length to extreme breadth favored by each. The leaders were in the "six-beam" class; Mr. Center and Mr. Hyslop in the "five-beam," and Cary Smith and the more conservative element in the "four-beam." Mr. Schuyler himself may be classed as "seven-beam" his ideal being just a little narrower than *Delvyn,* the best beloved of all his many craft, of 6.2 beams.

After some years of abuse and ridicule the day of the "Cutter Cranks" began to dawn in 1881 with the visit of the Scotch cutter *Madge* to New York and her winning of seven of the eight races in which she started against the best of the centerboard sloops. The climax came later in the second of the Fall races of the Seawanhaka Corinthian Yacht Club, in which 13 yachts started from the Upper Bay to sail around the Scotland Lightship, the five cutters finishing, while the eight sloops gave up and returned, each in a more or less disabled condition.

The virtual end of the long battle of type, the America's Cup matches of 1885-1886, witnessed the defeat of the "six-beam" cutter by a new type of deep centerboard yacht in which most of the leading features of the cutter, other than narrow breadth and extreme draft, had been successfully adopted by an American designer.

Yolande was sailed by Mr. Schuyler for seven seasons and then sold to Mr. Charles A. Stevenson. Like all the old cutters but her sister *Leila* she has passed away, but her counter is still preserved in the house of the Knickerbocker Yacht Club at Port Washington. She was succeeded by the 5-tonner *Delvyn,* one of the handsomest of the narrow boats designed by Will Fife, Jr., with a breadth of 5 ft. 4 ins. on a waterline of 33 ft. 6 ins. In 1890 she gave place to the larger Fife *Jessica,* of 20-rating, in which Mr. Schuyler sailed for twenty years, in the end with the aid of an auxiliary engine.

There arose, in 1885, in the Seawanhaka Corinthian Yacht Club, an unfortunate difference of opinion over a business matter between the trustees and some of the leading members of the club, resulting in the resignation of these members and the organization of the Corinthian Yacht Club. Mr. Schuyler, with his wonted energy and enthusiasm, took the lead in the new club, which he served for several years as secretary, and did much to make it a success through the dozen years of its life.

Looking at the yacht fleet of today, mainly keel craft of adequate depth of body, and with the centerboard boats practically safe from danger of capsizing, it is impossible to realize the conditions which called for reform half a century ago, or the difficulties which confronted the young revolutionists. For some years they were practically ostracized in the yacht clubs and they were the butt of much ridicule and severe abuse from men who were their superiors in age and yachting experience. That they succeeded in the end is due largely to those qualities which won for their leader the respect of his enemies and the affection of his many friends.

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Building a Model Yacht

(*Continued from page 296*)

proof glue will do for this job. The author has used Casein or Casco glue with good results.

First, saw cut to keel line fore and aft. This can be done on band saw if convenient to a mill, or with a turning saw. Then dress to line carefully with spoke shave, inside gouge and chisel. Gauge center line from bow to stern. Carry station lines from side to side across finished keel line and number each one. Saw cut to sheer line and dress smooth. Carry station lines from side to side and gauge center-line from stem to transom. Number each station where it crosses center-line.

Next, place half breadth template and trace outline of sides of hull. Saw-cut to this line and dress smooth with spoke shave or plane, squaring down from top. Before going further bore a ¼" hole 5/16" forward of station 10, another one ⅜" aft of station 10, and another at station 11. Push a ¼" dowel in each hole to reinforce joint at lead line. These can be withdrawn later and serve as cores for holes when casting ballast.

Then place number 9 template against block at 9 station, and remove waste stock until block appears as in Sketch 10.

Take inside and outside ½" gouges, and with them groove from the sheer line to keel line until template number 9 fits accurately. Before starting to groove, color edge of template with black or blue crayons. This color will touch the high spots and readily show where more cutting is necessary for proper fit. The hooks on template will catch at sheer line and keel line. Note Block V screwed on for holding in vise, Fig. 10.

Then shape sections 8-7-6-5-4-3-2-1, using this method and afterwards work aft on sections 10-11-12-13-14-15-16-17-18.

Remove waste wood between stations with a 1⅛" gouge having a rather flat section. You will not have so much material to dig through, when grooving at the section marks, as waste stock is removed following the general contour of the hull. Finish one side first, then the other.

Make groove for rudder stock along deadwood and keel and bore for rudder port or tube, using a 1¼" bit. Rudder post should be left ¼" wide.

Cut down to all grooves at stations, using spoke shave and block plane, being careful not to go below guide marks. Sand out all tool marks, using number 1½ sandpaper and finish with number 00. Shape transom and sand smooth. Then remove pattern for ballast by inserting cutting edge of chisel at after end and giving a sharp tap.

(*To be continued*)

See Page 326

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